JFA Associates
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Conducting Justice and Corrections Research for Effective Policy Making

Nevada Department of Correction
Ten Year Prison Population Projections
2009-2019

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I. INTRODUCTION

The Nevada State Budget Office has asked JFA Associate, LLC (JFA) to produce three separate forecasts for the state prison population to be completed in April 2008, September 2008 and April 2009. JFA under the direction of Ms. Wendy Naro-Ware utilized the Wizard 2000 simulation model to produce prison population projections for male and female offenders. Due to problems extracting data from the new Nevada Department of Corrections (NDOC) data system, the April 2008 forecast was delayed issue until May 2008. A second, revised forecast was issued in November 2008. This briefing document represents the results of the analysis and simulation for the third forecast cycle, April 2009.

For the current forecast, JFA reviewed current inmate population trends and analyzed computer extract files provided by the Department of Corrections. This briefing document contains a summary of projections of male and female inmates through the year 2019, a summary of recent offender trends, and an explanation of the primary assumptions on which the projections are based. The contents that follow are based on the analysis of computer extract files provided by the Department of Corrections in February 2009 as well as general population and crime trend data. All figures are contained in Appendix A of this document.

Important Note about the Impact of Data System Changes
The NDOC began utilizing a new data system in July 2007. Even though NDOC's data was migrated from the old to the new system, initially JFA observed many differences, limitations and problems with the data which impacted the forecast and results of the May 2008 report. JFA discussed these limitations and issues with NDOC during a meeting in June 2008. Since then, MIS and NDOC staff have made great strides in bettering the data provided to JFA. Both the aggregate data and data extract files needed for the forecast have been greatly improved and NDOC should be commended for their effort.

However, a few minor limitations remain in the data and forecast presented in this report. Most notably, admissions in July and August 2008 could not be segregated by type of admission or release. (This was true of all of the admissions and releases in 2007.) As can be seen in the report, JFA has performed various estimations of admissions type for July and August 2008 in order to populate certain tables and charts and perform calculations. In addition, our analysis of length of stay by release type excludes the offenders released in July and August 2008.

As a result of the missing July and August admission type data specification, JFA has built the simulation model based on the 10 months of 2008 data that includes admission type (January-June 2008 and September-December 2008). JFA does not see any serious limitations to this data adjustment and any minor affects this may cause are outweighed by the benefits of differentiating offenders by admission reason in the simulation model. With this data modification, JFA was able to construct the simulation model to and include separate forecasts and trace vectors for parole violators.

Accuracy of Past Forecast

Overall, the November 2008 forecast of the total Nevada state prison population generated by JFA tracked the actual population quite closely from January 2008 to January 2009, with an average monthly difference of 0.5 percent between the projected population and the actual population (an average accuracy of ±2.0 percent is considered accurate). The November 2008 forecast of male inmates differed from the actual male population by an average of 61 offenders per month, or 0.5 percent, from January 2008 to January 2009. For female inmates, the November 2008 forecast estimated the actual female population to within an average of 12 offenders per month, or 1.2 percent, from January 2008 to January 2009. However, starting in September for the males and in November for the females, the forecasts increasingly overestimated the actual populations. The actual male population dropped by -2.2 percent from July 2008 to January 2009, while the forecast predicted 0.4 percent growth over that same timeframe. The actual female population dropped by -5.5 percent from September 2008 to January 2009, while the forecast predicted 1.6 percent growth.

The drop in the reported male and female populations may have resulted from three main factors; (1) an increase in parole releases, (2) a decrease in parole and probation returns to prison and (3) a decrease or leveling off of new court commitments sent to prison.

II. BACKGROUND

The forecast of correctional populations in Nevada was completed using Wizard 2000 projection software. This computerized simulation model mimics the flow of offenders through the state's prison system over a ten-year forecast horizon and produces monthly projections of key inmate groups. Wizard 2000 represents a new version of the previously used Prophet Simulation model and introduces many enhancements over the Prophet Simulation model. The State of Nevada has utilized the Prophet Simulation software to produce its prison population forecast for more than ten years. JFA has upgraded the existing Nevada model into the latest Wizard 2000 software in order to take full advantage of the model's newest features.

Prior to 1995, sentenced inmates in Nevada received a maximum sentence and were required by law to serve at least one-third of the maximum sentence before a discretionary parole release hearing was held. Those offenders not granted discretionary parole release were released on mandatory parole three months prior to their maximum sentence expiration date. Under SB 416, offenders in Nevada are assigned both a maximum and a minimum sentence as recommended by Nevada State Parole and Probation officers. A complex grid was developed to recommend these sentences. The grid was revised several times between July 1995 and March 1996 before a final formula was agreed upon. The resulting statute-mandated offenders are not eligible for discretionary parole release until they have served their entire minimum sentence (less jail credits). Monthly good-time earned credits are no longer applied to the reduction of the time until discretionary parole eligibility. The system of mandatory parole release remained unchanged under the new statute. In addition to these sentence recommendation changes, SB 416 also put in place the diversion of all E felony offenders from prison.

The current simulation model mimics the flow of inmates admitted under two sentencing policies: 1) inmates admitted to prison with "old law" sentences and 2) inmates admitted under

SB 416. Within the simulation model, all inmates admitted to prison are assigned minimum and maximum sentences for their most serious admitting offenses. The model performs time calculations, simulates the parole hearing process, and releases offenders from prison based on existing laws and procedures.

From December 2002 to August 2005, the Nevada state prison system housed a number of male inmates from Wyoming and Washington State (for JFA reports, 363 at year-end 2003 and 2004 was assumed). Although our simulation model does accurately account for interstate compact cases housed in Nevada, the nature of the arrangement for housing the Wyoming and Washington offenders could not be anticipated. Furthermore, these offenders should not be included in prison population estimates. Traditional prison population estimates are designed to provide an accurate estimation of future demands on a prison system as dictated by crime rates, parole violations, sentencing laws, parole board behavior, etc. As a result, these offenders have been excluded from actual counts and future estimates provided in the reports. At present, NDOC is not housing any out of state contract inmates.

In July 2007, the State of Nevada passed AB 510 which changed three main aspects of a prisoner's good time credit calculations. First, under AB 510 the monthly earning of good time for an offender who engages in good behavior increased from 10 days to 20 days. Second, AB 510 increased the amount of good time awarded for all education, vocations training and substance abuse treatment programs completed while incarcerated. Credits for program completion would apply to both the minimum and maximum sentences. Lastly, AB 510 provided that certain credits to the sentence of an offender convicted of certain category C, D or E felonies (that do not involve violence, a sexual offense or a DUI that caused death) will be deducted from the minimum term imposed by the sentence until the offender becomes eligible for parole and from the maximum term imposed by the sentence. Previously, these credits could not be applied to the minimum term imposed, only the maximum.

AB 510 was passed and went into effect on all offenders to be admitted to the NDOC in July 2007. Also, offenders currently housed within the NDOC were made retroactively eligible for all credits listed in the bill. This caused an immediate and dramatic increase in the number of offenders who were parole eligible and a corresponding backlog in the parole board caseload. During the first half of 2008, the parole board made diligent efforts to hear and release lower level offenders in order to get the prison population down as quickly as possible. During the latter half of 2008, most hearings were held in absentia which are typically made up of more serious offenders. As a result, parole grant rates were higher in January-June and lower July-December. The overall yearly average of all months combined should prove representative of parole board practices under AB 510.

III. TRENDS IN POPULATION AND CRIME IN NEVADA

***Significant Finding**: The Nevada population has grown at an astonishing rate for over two decades. The state's population is projected to grow at a slower pace over the period from 2009 to 2019 – an average of 2.2 percent per year. From 2007 to 2008, the state's population grew by 1.8 percent – which is by far the smallest one year change in over two decades.*

***Significant Finding**: Levels of serious crime in Nevada rose in the first part of the 1990s (average annual increases of 6.8 percent for UCR Part I crimes from 1990 to 1995), fell in the latter part of the decade (average annual decrease of -4.2 percent from 1995 to 1999), and then increased every year from 1999 to 2006 (average annual increase of 5.3 percent). In 2007, however, UCR Part I crimes declined by -3.6 percent, driven by a decline in serious property crimes.*

***Significant Finding**: Rates of UCR Part I crimes in Nevada rose slightly for the early part of the 1990s and then fell distinctly the latter part of the decade. Since 2000, the UCR Part I crime rate rose substantially from 2001 to 2003 (at an average annual rate of 7.2 percent), and remained fairly level from 2003 to 2006 (an average annual decrease of -0.5 percent). In 2007, however, the state crime rate decreased by -6.3 percent.*

A. Population

The U.S. Census Bureau conducts a decennial census and the Census Bureau's Population Estimates Program publishes population numbers between censuses. After each decennial census, the Census Bureau examines its estimates and revises them, where necessary. The decennial census result for Nevada for 2000 is shown in bold in TABLE 1, while the remainder of the column shows the US Census estimates for July 1 of each year. We also present population estimates issued by Nevada's State Demographer.

For over two decades, Nevada has experienced a phenomenal growth in population, but is showing signs of slower growth. As the U.S. Census Bureau reported in December 2008: "Nevada, which had been among the four fastest-growing states each of the last 24 years, grew 1.8 percent and ranked eighth over the most recent period."[1]

[1] U.S. Census Bureau. Press Release 12/22/2008 (visited 3/9/2009) [http://www.census.gov/Press-Release/www/releases/archives/population/013049.html]

TABLE 1: ESTIMATES OF NEVADA'S POPULATION: 2000 – 2008

Year	Population Estimates (US Census)	% change	Population Estimates (Nevada State Demographer)	% change
2000	**1,998,257***		**1,998,257***	
2001	2,095,331	4.9%	2,132,498	6.7%
2002	2,167,645	3.5%	2,206,022	3.4%
2003	2,238,336	3.3%	2,296,566	4.1%
2004	2,329,960	4.1%	2,410,768	5.0%
2005	2,408,948	3.4%	2,518,869	4.5%
2006	2,492,427	3.5%	2,623,050	4.1%
2007	2,565,382	2.9%	2,718,337	3.6%
2008	2,600,167	1.8%	2,738,733	0.8%
Numeric Change 2000-2008	601,910		740,476	
Percent Change 2000-2008	30.1%		37.1%	
Average Annual Change 2000-2008		3.3%		4.0%

* Actual April 1, 2000 US Census figure. All other figures are July 1 estimates from the US Census Bureau and the Nevada State Demographer. Note that the US Census occasionally updates annual estimates since the most recent decennial census.

Both sets of numbers in TABLE 1 demonstrate a staggering rate of growth in Nevada's population between 2000 and 2007, with average annual growth estimates of 3.6 and 4.5 percent from the U.S. Census and the Nevada State Demographer, respectively. Since 2000, Nevada's population has increased by more than half a million people to exceed 2.5 million people. However, the much smaller growth estimates from 2007 to 2008 from the U.S. Census and the Nevada State Demographer of 1.8 and 0.8 percent, respectively, suggest that the pace of growth has slowed substantially.

In mid-2008, the Nevada State Demographer issued new total population projections. From 2009 to 2019, average annual growth is now expected to be 2.2 percent, down from the 2.8 percent average annual growth projected in 2006 by the Nevada State Demographer for the same timeframe. In terms of the age group representing the majority of all new commitments to Nevada prisons (ages 20-39), the Nevada State Demographer's 2006 ASRHO[2] projections show that the population is expected to grow at an average annual rate of 2.6 percent from 2009 to 2019. (See Figure 1.)

[2] Age, Sex, Race, Hispanic Origin. The Nevada State Demographer's website contains total population projections issued in August 2008, but ASRHO population projections issued in 2006. We would surmise that 2008 ASRHO projections for the 20-39 year age group would be lower in 2008 than in 2006.

B. Crime

Although no statistical significance can be found between crime rates and prison admissions, observing these rates can provide some anecdotal evidence that allows some insight into state prison admission trends. Observing historical levels of crime can provide some guidance in projecting future admissions to prison. During the 1990s, the level of the most serious violent and property crimes (defined by the FBI's Uniform Crime Reports Part I Crime category) in Nevada increased steadily during the first part of the decade and displayed a generally decreasing trend during the latter. From 1990 to 1995, the number of UCR Part I crimes in Nevada increased each year, rising at an average annual rate of 6.8 percent. From 1995 to 1999, the number of UCR Part I crimes fell at an average annual rate of -4.2 percent. Serious crime increased each year from 1999 to 2006 at an average of 5.3 percent per year. From 2006 to 2007, however, UCR Part I crimes in Nevada fell -3.6 percent, driven by a decline in serious property crime. (See Figure 2). Notably, UCR Part I violent crimes in Nevada grew by 4.0 percent from 2006 to 2007 after increasing by 26.3 percent from 2005 to 2006. Part I property crimes fell by -5.0 percent from 2006 to 2007 after a slight drop of -0.4 percent from 2005 to 2006.

The area served by the Las Vegas Metropolitan Police Department (LVMPD) has generally exhibited similar changes in crime levels as the state as a whole. This area represents approximately half of the state's population and over half of the state's Part I crime. The area served by the LVMPD experienced a decline in UCR Part I crimes from 1995 to 2000, but posted increases each year from 2000 to 2006. The average annual increase from 2000 to 2006 was 7.9 percent. Like the statewide trend, serious crime in the LVMPD's jurisdiction fell by -2.4 percent from 2006 to 2007, driven by a decline in serious property crimes. (See Figure 2A). Serious violent crime rose by 5.5 percent from 2006 to 2007 in the area served by the LVMPD, after the dramatic increase of 35.7 percent from 2005 to 2006.

Unfortunately, we do not have access to the numbers of UCR Part II crimes for Nevada. As the Part II crime category includes many crimes that can result in prison sentences (especially drug offenses), the absence of these data substantially limits our capacity to use crime data to guide prison admissions projections.[3]

C. Putting Population and Crime Together: Crime Rates

The decline in serious crime in the later part of the 1990's occurred as the state population continued its dramatic increase -- resulting in a distinct shift in crime *rates*. From 1990 to 1994, the UCR Part I crime rate in Nevada rose at an average annual rate of 2.5 percent, while from 1994 to 2000, the rate fell significantly at an average annual rate of -7.0 percent. The trend of large percentage declines in Nevada's crime rate began in 2000. After remaining essentially unchanged from 2000 to 2001, Nevada's crime rate increased at an average annual rate of 7.2 percent from 2001 to 2003. From 2003 to 2006, there was little movement in the overall Part I

[3] The FBI publishes data that include Part II *arrest* data, however, those data are missing for certain years. Additionally, the number of law enforcement jurisdictions from Nevada (like many other states) reporting arrests to the FBI changes from year to year resulting in changes in the number of arrests reported by the FBI that may not reflect actual and overall changes in the number of arrests in the state.

crime rate, with an average annual change of -0.5 percent.[4] From 2006 to 2007, however, Nevada experienced a decline of -6.3 percent in its UCR Part I crime rate.

In the area served by the LVMPD, the crime rate dropped by an average annual rate of -9.3 percent from 1995 to 2000.[5] Like the statewide trends, the large percentage declines in the crime rates for the LVMPD jurisdiction in the late 1990s did not continue. From 2000 to 2001, the crime rate fell by a much smaller -2.7 percent, while from 2001 to 2003, the urban crime rate grew at an average annual rate of 11.4 percent. From 2003 to 2006, the LVMPD crime rate remained essentially unchanged (with an average annual change of 0.2 percent). Again, similar to the statewide situation, the UCR Part I crime rate fell by -4.3 percent in the LVMPD's jurisdiction.

D. Comparison of Nevada and the United States

In the discussion above, the population and crime data are observed in terms of changes over time within Nevada. In TABLE 2, we present Nevada's population and crime data compared to the national levels and trends. TABLE 2 makes clear the striking increases in Nevada's population relative to the national trends. Since 2000, Nevada's population growth (30.1 percent) far outpaced the national population growth (8.0 percent).

In terms of crime rates in 2007, Nevada had notably higher serious property and violent crime rates per 100,000 inhabitants as compared to the nation. However, the *trends* in the crime rates for Nevada and the nation over the past 10 years were similar. The ten-year decline in Nevada's serious crime rate (-25.3 percent) was slightly larger than the nationwide decline (-24.3 percent). From 2006 to 2007, Nevada's serious crime rate decreased by -6.3 percent, while the nationwide crime rate fell by -2.0 percent.

In terms of state prison populations, Nevada has seen larger growth than the nation as a whole since 2000, but more recently is showing signs of slower growth. From 2000 to 2006, Nevada's prison population grew at an average annual rate of 4.5 percent, while the nationwide state prison population grew at an average annual rate of 1.7 percent. From 2006 to 2007, however, the growth rates were much closer with Nevada's state prison population growing by 1.2 percent, and the nationwide state prison population growing by 1.5 percent.

The 2007 incarceration rate in Nevada (520.0 per 100,000 residents) exceeded that of the nation (464.2 per 100,000).

[4] It is worth noting that the statewide Part I violent crime rate increased by 22.1 percent from 2005 to 2006. Since the Part I property crime rate went down and there are so many more property crimes than violent crimes, the impact of the surge in the violent crime rate in the overall crime rate is obscured.

[5] The FBI did not show the reported crime for the LV MPD for 1997. For the 1995 - 2000 average, it was assumed that the 1997 figure was the average of the 1996 and 1998 figures.

TABLE 2: COMPARISON BETWEEN UNITED STATES AND NEVADA ON POPULATION, CRIME AND CORRECTIONS MEASURES

	United States	Nevada
POPULATION[6]		
Total Population (7/1/08)	304,059,724	2,600,167
Change in Population		
1-year change (7/1/07 – 7/1/08)	0.9%	1.8%
8-year change (4/1/00 – 7/1/08)	8.0%	30.1%
CRIME RATE[7] (Rate per 100,000 inhabitants)		
UCR Part I Reported Crime Rates (2007)		
Total	3,730.4	4,528.4
Violent	466.9	750.6
Property	3,263.5	3,777.8
Change in Total Reported Crime Rate		
1-year change (2006-2007)	-2.0%	-6.3%
10-year change (1997-2007)	-24.3%	-25.3%
PRISON POPULATION[8]		
Total Inmates (State Prisoners Only) 2007	1,398,698	13,341
1-year change (2006-2007)	1.5%	1.2%
6-year change (2000-2007)	12.3%	31.2%
Average annual change (2000-2006)	1.7%	4.5%
Incarceration Rate (per 100,000 inhabitants)[9]	464.2	520.0

[6] U.S. Census Bureau, Population Division. Population estimates for July 1, 2008.
[7] Uniform Crime Reports, Crime in the United States – 2007, Federal Bureau of Investigation.
[8] Prisoners in 2007, Bureau of Justice Statistics Bulletin (December 2008). Nevada data provided by the Nevada Department of Corrections is from CY2007.
[9] Rates were generated by using U.S. Census population estimates for July 1, 2007.

IV. INMATE POPULATION LEVELS AND ACCURACY OF THE NOVEMBER 2008 PROJECTION

Important Note: *In July 2007, the State of Nevada passed AB 510 which awarded most offenders more statutory monthly goodtime and allowed these credits to be applied to the minimum sentence term for most C, D and E felons. AB 510 also increased alcohol, drug, vocational and educational program completion credits.*

Significant Finding: *Overall, the November 2008 forecast estimated the Nevada state prison population quite accurately from January 2008 through January 2009 (with an average monthly difference in the projected and actual populations of 0.5 percent).*

Significant Finding: *The forecast of the male inmate population tracked the actual population very closely from January until September, and then showed an increasing over projection through January 2009. The decline in the actual male population starting in August 2008 may be the result of a concurrent increase in parole board hearings that had been overdue.*

Significant Finding: *The forecast of the female population has tracked the actual population closely, with an over projection starting in November 2008. For the males, the average monthly difference from January 2008 through January 2009 was 61 offenders, or 0.5 percent. For the females, the average monthly difference was 12 prisoners or 1.2 percent.*

TABLE 3 and Figures 3 and 4 illustrate the accuracy of the November 2008 projections of the male and female inmate populations. The monthly inmate projections are compared with the actual population counts reported by the Nevada Department of Corrections.

The forecast of the male inmate population for January 2008 through January 2009 tracked the actual population very closely from January through September 2008, and then increasingly overestimated the actual population through January 2009. (See Figure 3.) The forecast remained within the acceptable accuracy differential of ±2.0 percent for all but January 2009 when the difference between projected and actual male inmate counts was 2.4 percent. The forecast estimated that the male inmate population would grow by 0.4 percent from July 2008 to January 2009. Instead, the actual male inmate population declined by -2.2 percent. The decline in the population may be the result of an increase in parole releases in those months when the parole board was able to hear many cases that were overdue. The average monthly numeric error for the male forecast for January 2008 through January 2009 was 61 offenders and the average monthly percent difference was 0.5 percent. (See TABLE 3.)

Female prison populations are historically more volatile than male populations because of their small sizes and facility constraints, and projections are generally less accurate. The forecast of the female inmate population for January 2008 through January 2009 tracked the actual population quite closely. (See Figure 4.) From November 2008 through January 2009, the forecast exceeded the acceptable accuracy differential of ±2.0 percent. The average monthly

numeric error for January 2008 through January 2009 was 12 offenders and the average monthly percent difference was 1.2 percent. (See TABLE 3.)

TABLE 4 presents the November 2008 forecast for admissions and compares the forecasted counts against the actual counts. Total admissions for January through December 2008 were generally over-forecasted: actual were 5,953 compared to 6,443 forecasted. The average monthly difference between the actual and projected counts was 19, or 4.2 percent.

TABLE 3: ACCURACY OF THE NOVEMBER 2008 FORECAST:
TOTAL INMATE POPULATION JAN 2008 – JAN 2009

	Male				Female				Total			
	Actual	**Projected**	**# Diff**	**% Diff**	**Actual**	**Projected**	**# Diff**	**% Diff**	**Actual**	**Projected**	**# Diff**	**% Diff**
2008												
January	12,251	12,258	7	0.1%	1,088	1,081	-7	-0.6%	13,339	13,339	0	0.0%
February	12,225	12,224	-1	0.0%	1,094	1,085	-9	-0.8%	13,319	13,309	-10	-0.1%
March	12,373	12,273	-100	-0.8%	1,064	1,067	3	0.3%	13,437	13,340	-97	-0.7%
April	12,442	12,397	-45	-0.4%	1,054	1,061	7	0.7%	13,496	13,458	-38	-0.3%
May	12,468	12,414	-54	-0.4%	1,041	1,056	15	1.4%	13,509	13,470	-39	-0.3%
June	12,409	12,406	-3	0.0%	1,046	1,061	15	1.4%	13,455	13,467	12	0.1%
July	12,464	12,433	-31	-0.2%	1,049	1,069	20	1.9%	13,513	13,502	-11	-0.1%
August	12,407	12,421	14	0.1%	1,073	1,066	-7	-0.7%	13,480	13,487	7	0.1%
September	12,350	12,430	80	0.6%	1,086	1,070	-16	-1.5%	13,436	13,500	64	0.5%
October	12,312	12,449	137	1.1%	1,061	1,069	8	0.8%	13,373	13,518	145	1.1%
November	12,224	12,453	229	1.8%	1,054	1,079	25	2.4%	13,278	13,532	254	1.9%
December	12,223	12,476	253	2.0%	1,042	1,082	40	3.8%	13,265	13,558	293	2.2%
January 2009	12,184	12,488	304	2.4%	1,026	1,087	61	5.9%	13,210	13,575	365	2.8%
Numeric Change Jan 08 – Jan 09	**-67**	**230**			**-62**	**6**			**-129**	**236**		
Average Monthly Difference Jan 08 – Jan 09			**61**	**0.5%**			**12**	**1.2%**			**73**	**0.5%**

TABLE 4: ACCURACY OF THE NOVEMBER 2008 FORECAST: ADMISSIONS 2008

	Total Admissions			
2008	**Actual**	**Projected**	**# Diff**	**% Diff**
January	519	457	-62	-11.9%
February	451	509	58	12.9%
March	545	566	21	3.9%
April	521	528	7	1.3%
May	520	509	-11	-2.1%
June	482	583	101	21.0%
July	517	566	49	9.5%
August	497	573	76	15.3%
September	493	523	30	6.1%
October	490	583	93	19.0%
November	413	523	110	26.6%
December	505	523	18	3.6%
Total	**5,953**	**6,443**	**490**	**8.2%**
Average Monthly Difference			**19**	**4.2%**

V. INMATE POPULATION TRENDS

A. Trends in Admissions

Significant Finding: *From 2005 to 2006, male admissions grew by 7.9 percent, and then were virtually unchanged from 2006 to 2007, growing a slight 0.2 percent. From 2007 to 2008, male admissions fell by -4.6 percent – the largest decline since 1999.*

Significant Finding: *From 2005 to 2006, female admissions grew by 20.0 percent, and then declined by -2.8 percent from 2006 to 2007. From 2007 to 2008, female admissions fell by -10.6 percent – the largest decline since 2001.*

TABLE 5 and TABLE 6 present the male and female admissions to prison from 1998 to 2008. The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the ten months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August. Note that most of the 2007 admissions data is missing. These tables are usually populated with data from NDOC monthly reports, but those were unavailable for 2007, and the NDOC admissions data file provided unreliable data for admissions by type. As a result, only the safekeeper and total admissions populations are presented for 2007.

Figures 5 and 6 show the male and female admissions to prison over the past decade, distinguishing the new court commitments from the parole violators (except for 2007 when only total admissions are shown). Total admissions reported in 2008 show a significant decrease from 2006 and 2007 levels.

1. Males Admitted to Prison

From 1998 to 2008, the average annual change in the number of males admitted to prison for any reason was 2.3 percent.[10] That number masks the volatility of the male admissions that alternately increased and decreased between 1996 and 2001, and then had five consecutive years of increases through 2006. From 2001 to 2006, male admissions grew at an average annual rate of 5.9 percent. From 2006 to 2007, male admissions appeared virtually unchanged, growing a slight 0.2 percent. From 2007 to 2008, male admissions dropped by -4.6 percent – the largest percentage drop since 1999.

Since much of the 2007 admissions data is missing, we observe the change in subcategories from 2006 to 2008. Notably, the parole violator admissions have dropped by more than -26 percent over the past two years, with the number of mandatory parole violators admitted to prison declining dramatically.

[10] In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

2. Females Admitted to Prison

From 1998 to 2008, the average annual change in the number of females admitted to prison was 3.9 percent. Similar to the male admissions trends, female admissions have fluctuated with alternating increases and decreases in every year from 1996 to 2004. After growing by 20.0 percent from 2005 to 2006, female admissions declined by -2.8 percent from 2006 to 2007. From 2007 to 2008, female admissions dropped by -10.6 percent.

TABLE 5: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: MALES: 1998 –2008

Year	New Court Commitments & Probation Violators	Safekeepers	NPR/CC	Total New Commitments	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing	TOTAL
1998	3,172	286	57	3,515	568	154	722		4,237
1999	2,949	216	64	3,229	557	169	726		3,955
2000	3,121	247	56	3,424	696	192	888		4,312
2001	3,019	203	43	3,265	727	138	865		4,130
2002	3,120	224	40	3,384	758	162	920		4,304
2003*	3,214*	217	50	3,481	774	180	954		4,435
2004	3,711	274	58	4,043	653	229	882		4,925
2005	3,943	272	52	4,267	596	214	810		5,077
2006	4,389	285	70	4,744	520	213	733		5,477
2007**		247							5,489
2008[^]	4,318	245	59	4,622	493	44	537	77	5,236
Numeric Change 1998 –2008	1,146	-41	2	1,107	-75	-110	-185		999
Percent Change 1998 –2008	36.1%	-14.3%	3.5%	31.5%	-13.2%	-71.4%	-25.6%		23.6%
Average Annual Percent Change[#] 1998 –2008	3.3%	-0.5%	1.9%	3.0%	-0.8%	-6.1%	-2.4%		2.3%
Percent Change 2006 –2008[##]	-1.6%	-14.0%	-15.7%	-2.6%	-5.2%	-79.3%	-26.7%		-4.4%

*Male new court commitment numbers for 2003 do not include 367 offenders admitted under contract from Wyoming and Washington State.

** Table 5 is usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, the admissions data shown in Table 5 for 2007 is from the NDOC admissions data file. The admissions data file for 2007 from NDOC provided unreliable data for admissions by type. As a result, only the safekeeper and total admissions populations are presented for 2007.

[^] The admissions datafile for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

[#] In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

[##] JFA usually presents the most recent one-year percent change, but due to the missing data for 2007, JFA presents the most recent two-year percent change.

TABLE 6: HISTORICAL ADMISSIONS TO PRISON BY ADMISSION TYPE: FEMALES: 1998 –2008

Year	New Court Commitments & Probation Violators	Safekeepers	NPR/CC	Total New Commitments	Discretionary Parole Violators	Mandatory Parole Violators	Total Parole Violators	Other/ Missing	TOTAL
1998	437	5	4	446	54	17	71		517
1999	435	1	5	441	50	16	66		507
2000	487	1	2	490	94	24	118		608
2001	420	1	9	430	94	13	107		537
2002	464	0	5	469	75	26	101		570
2003	437	3	1	441	74	20	94		535
2004	564	2	4	570	60	19	79		649
2005	601	0	3	604	55	20	75		679
2006	734	1	11	746	46	23	69		815
2007**		0							792
2008[^]	615	3	3	621	72	3	75	21	708
Numeric Change 1998 –2008	178	-2	-1	175	18	-14	4		191
Percent Change 1998 –2008	40.7%	-40.0%	-25.0%	39.2%	33.3%	-82.4%	5.6%		36.9%
Average Annual Percent Change[#] 1998 –2008	4.3%	-39.2%	64.0%	4.2%	6.6%	-2.9%	3.0%		3.9%
Percent Change 2006 –2008[##]	-16.2%	200.0%	-72.7%	-16.8%	56.5%	-87.0%	8.7%		-13.1%

** TABLE 6 is usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, the admissions data shown in TABLE 6 for 2007 is from the NDOC admissions data file. The admissions data file for 2007 from NDOC provided unreliable data for admissions by type. As a result, only the safekeeper and total admissions populations are presented for 2007.

[^] The admissions datafile for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

[#] In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, JFA utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

[##] JFA usually presents the most recent one-year percent change, but due to the missing data for 2007, JFA presents the most recent two-year percent change.

B. Trends in Parole Release Rates

Significant Finding: *As a result of parole board AB 510 efforts, discretionary releases rates jumped dramatically from 50.0 percent in 2007 to 59.9 in the first half of 2008, only to drop substantially in the latter half of 2008. Discretionary release rates for all of 2008 were 46.3 percent. Male discretionary release rates (which make up the majority of discretionary release rates) decreased by 4.4 percentage points compared to 2007, while female grant rates rose by 4.1 percentage points.*

Significant Finding: *Overall mandatory release rates dropped from 2007 to the first half of 2008, falling by 3.8 percentage points to 66.8 percent. They fell even more precipitously in the latter half of 2008. Mandatory release rates for all of 2008 were 55.6 percent. Male mandatory release rates (which make up the majority of all mandatory release rates) decreased by 17.0 percentage points compared to 2007, while female mandatory release rates increased by 2.0 percentage points.*

TABLE 7 compares parole release rates from 2000 through 2008 (with 2002 figures representing data from November 1, 2001 to October 31, 2002) by type of parole hearing. JFA have left in the rates from January through June 2008 in order to point out the impact of the changes in the parole board hearings that took place throughout 2008. As noted earlier, the difference in the first and latter half of 2008 are a result of AB 510 efforts made by the parole board. The overall yearly average of 2008 is assumed to be representative of parole board behavior under AB 510.

TABLE 8 and TABLE 9 present the parole release rate characteristics for male and female inmates in 2008. Figures 7 and 8 present recent parole release rate data: Figure 7 shows the overall release rates from 2003 to 2008 by type of hearing while Figure 8 presents the data from 2005 to 2008 disaggregated by gender. Since 1999, Ms. Naro-Ware and JFA have generated release rate statistics disaggregated by gender. The simulation model utilizes these gender-based release rates. For discretionary release hearings, the release rates for female offenders are higher than for male offenders. The rates for mandatory release hearings used to be fairly similar for males and females, but are becoming consistently higher for females as well.

Also, release rates issued in the report are actually release rates rather than grant rates. If an offender is temporarily granted parole and then it is rescinded before an offender is released, it is counted in JFA's statistics as one denial. Parole board statistics would label this as a grant and then a denial. To avoid confusion, all rates presented in this report are labeled release rates rather than grant rates.

- For male inmates in 2008, the total discretionary release rate for A felons was 15.1 percent, while for B, C, D, and E felons, those rates ranged from 36.6 (B felons) to 77.9 percent (E felons). The overall discretionary release rate for male offenders fell each year from 2001 to 2005, from 54.3 percent in 2001 to 47.1 percent in 2005. It rose slightly in 2006 and then fell to 47.9 percent in 2007. In 2008, the male discretionary release rate fell again to 43.5.

- For female inmates in 2008, the total discretionary release rate for A felons was 23.1 percent, while for B, C, D, and E felons, those rates ranged from 52.5 to 83.9 percent. In 2005, the total discretionary release rate for female offenders was 57.2 percent – the lowest it had been in the prior five years. The female discretionary release rate jumped to 68.9 percent in 2006, fell to 63.1 percent in 2007, and rose again to 67.2 percent for 2008.

- The mandatory parole release rate for male offenders in 2008 was 53.0 percent – down dramatically from the 70.0 percent rate in 2007. The mandatory parole release rate for female offenders in 2008 increased to 78.4 percent from 76.4 percent in 2007.

- As presented in TABLE 7, the total discretionary release rate for males and females together was in the mid-50 percent range from 2000 to 2002, before falling slightly to the high-40 and low-50 percent range from 2003 to 2007. The total discretionary release rate fell to 46.3 in 2008. The mandatory release rate for males and females combined was in the upper-40 percent range from 2000 to 2002 before jumping to around 60 percent for 2003 to 2005 and to around 70 percent for 2006 and 2007. For 2008, the mandatory release rate dropped significantly to 55.6 percent. (See Figures 7 and 8.)

TABLE 7: PAROLE RELEASE RATES 2000 –2008

	Discretionary Grant Rate	Mandatory Grant Rate	Total Grant Rate
Males			
2000	52.5	45.3	50.9
2001	54.3	46.2	52.4
2002*	52.7	47.7	51.5
2003	50.7	59.7	52.9
2004	48.3	58.7	51.2
2005	47.1	59.3	50.4
2006	48.5	69.4	54.7
2007	47.9	70.0	52.2
Jan-June 2008	*56.7*	*64.9*	*59.5*
2008	43.5	53.0	46.8
Females			
2000	72.6	47.0	69.2
2001	72.6	46.5	66.5
2002*	66.9	47.4	62.4
2003	57.4	63.4	58.7
2004	58.5	60.0	58.9
2005	57.2	57.1	57.1
2006	68.9	84.1	73.4
2007	63.1	76.4	65.0
Jan-June 2008	*74.4*	*80.9*	*75.9*
2008	67.2	78.4	70.7
Total			
2000	54.9	46.9	53.2
2001	56.4	46.3	54.0
2002*	54.2	47.6	52.6
2003	51.5	60.1	53.6
2004	49.5	58.9	52.0
2005	48.4	59.0	51.2
2006	50.9	71.1	56.9
2007	50.0	70.6	53.9
Jan-June 2008	*59.9*	*66.8*	*62.1*
2008	46.3	55.6	49.5

* 2002 figures represent data for November 1, 2001 to October 31, 2002

For comparison, we have left in the parole release rates for January through June 2008.

TABLE 8: MALE INMATE PAROLE RELEASE HEARINGS HELD: 2008

Offender Felony Category	Discretionary Parole Release Rates					Total Discretionary Parole Release Rate	*Average Wait Time (months) to Discretionary Release Hearing	Total Mandatory Parole Release Rate	Total Parole Release Rate
	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5				
A Felons	9.0	13.5	23.8	19.1	18.0	15.1	31.0	26.7	15.5
B Felons	34.1	46.8	37.0	36.0	33.3	36.6	14.5	51.4	42.6
C Felons	49.1	67.6	(0/4) = 0.0	(4/9) = 44.4	(1/6) = 16.7	50.2	12.3	52.4	51.0
D Felons	59.2	76.7	(1/3) = 33.3	(3/4) = 75.0	N/A	60.2	12.0	59.5	60.0
E Felons	76.7	87.5	N/A	(2/2) = 100.0	N/A	77.9	12.0	67.4	75.7
TOTAL	45.2	49.2	33.3	33.7	26.0	43.5	16.2	53.0	46.8

TABLE 9: FEMALE INMATE PAROLE RELEASE HEARINGS HELD: 2008

Offender Felony Category	Discretionary Parole Release Rates					Total Discretionary Parole Release Rate	*Average Wait Time (months) to Discretionary Release Hearing	Total Mandatory Parole Release Rate	Total Parole Release Rate
	Hearing #1	Hearing #2	Hearing #3	Hearing #4	Hearing #5				
A Felons	(0/4) = 0.0	(2/4) = 50.0	(1/1) = 100.0	(0/2) = 0.0	(0/2) = 0.0	23.1	31.4	N/A	23.1
B Felons	51.8	70.6	(5/8) = 62.5	8.3	(1/3) = 33.3	52.5	15.0	76.6	63.6
C Felons	66.7	(6/7) = 85.7	(2/3) = 66.7	N/A	N/A	67.8	12.0	85.5	73.3
D Felons	75.0	83.3	N/A	(2/2)= 100.0	(1/1) =100.0	76.3	12.0	79.4	76.8
E Felons	82.8	(6/6) =100.0	N/A	N/A	N/A	83.9	12.0	75.0	82.6
TOTAL	67.8	77.1	66.7	18.8	(2/6) = 33.3	67.2	14.4	78.4	70.7

* Many of the cases in the parole hearing data file were missing a next hearing data entry, and so the calculation of the "Average Wait Time (months) to Discretionary Release Hearing" is based on an unusually small number of cases.

C. Trends in the Prison Inmate Population

Significant Finding: *From January through December 2008, the Nevada State prison population declined by -76 offenders (a decrease of -0.6 percent since the end of 2007) to end at 13,265. It is the first decline in population since 1999.*

Significant Finding: *Looking at the past decade, the Nevada prison population exhibited modest growth from 1998 to 2003 (aside from an increase of 5.9 percent from 1999 to 2000), followed by strong growth in 2004, 2005 and 2006 (posting average annual increases of 7.7 percent). From 2006 to 2007, the population grew a slight 1.2 percent, and then fell -0.6 percent in 2008.*

Significant Finding: *The male prison population exhibited a slight decline in 2008, while the female prison population declined more substantially. The male population declined -0.2 percent, while the female population decreased by -4.9 percent.*

TABLE 10 and Figure 9 present the year-end inmate populations for male and female inmates from 1998 to 2008.

- The male prison population has increased by 3,315 offenders from end of year 1998 to 2008 – a total increase of 37.2 percent with an average increase of 3.3 percent per year. From year-end 2007 to 2008, the male inmate population declined by -22 offenders, or -0.2 percent, for a total of 12,223 male inmates.

- The overall pace of the growth in the female prison population has slightly exceeded that of the males over the past decade. The female prison population increased by 299 offenders from 1998 to 2008 – a total increase of 40.2 percent with an average increase of 3.8 percent per year. From year-end 2007 to 2008, the female confined population decreased by -54 offenders, or -4.9 percent, for a total of 1,042 female inmates.

- Females made up 7.9 percent of the state prison population at the end of December 2008. In the past decade, the percentage of the prison population that is female has ranged from 7.7 to 9.0 percent.

- When looking at the changes in the population over the past decade, the population grew at a much faster rate in 2004, 2005 and 2006 than it has before or since (except for an increase of 5.9 percent from 1999 to 2000). The male population grew at an average annual rate of 1.8 percent from 1998 to 2003 and 7.2 percent from 2003 to 2006. From 2006 to 2007, the male population grew 2.0 percent, and fell just -0.2 percent in 2008. The female population has shown greater fluctuation: the average annual rate of change was 2.1 percent from 1998 to 2003 and 13.3 percent from 2003 to 2006. The female population dropped -7.4 percent from 2006 to 2007, and declined by -4.9 percent in 2008.

TABLE 10: HISTORICAL INMATE POPULATION: 1998-2008

Year	Male Population	Female Population	Total Population
1998	8,908	743	9,651
1999	8,868	737	9,605
2000	9,316	856	10,172
2001	9,520	834	10,354
2002	9,612	848	10,460
2003*	9,736	816	10,552
2004*	10,490	949	11,439
2005	11,075	1,008	12,083
2006	12,003	1,183	13,186
2007	12,245	1,096	13,341
2008	12,223	1,042	13,265
Numeric Change 1998-2008	**3,315**	**299**	**3,614**
Percent Change 1998-2008	**37.2%**	**40.2%**	**37.4%**
Average Annual Percent Change 1998-2008	**3.3%**	**3.8%**	**3.3%**
Percent Change 2007 –2008	**-0.2%**	**-4.9%**	**-0.6%**

* Male year-end 2003 and 2004 figures do not include 363 prisoners held on contract from Wyoming and Washington State.

Numbers represent end of calendar year figures.

D. Trends in Releases from Prison

Significant Finding: *The average lengths of stay for male and female inmates released to parole decreased in 2008, continuing the downward trend observed since 2004. The average lengths of stay for inmates paroled in 2008 were the lowest they have been in the past few years.*

Significant Finding: *For inmates discharged from prison, the average lengths of stay rose notably in 2007 and remained at similar, though slightly lower, levels in 2008. We suspect that the part of the increase in length of stay for those discharged resulted from the increase in less serious offenders receiving early parole release, leaving more serious offenders with longer terms.*

TABLE 11 and TABLE 12 present the average length of stay for male and female inmates by release type (parole or discharge) for 2005 to 2008. Note that any released offenders who had a sentence of life or life with parole were excluded from these tables. The results shown for 2008 represent the length of stay for offenders released in all months of 2008, excluding July and August. The NDOC data files do not include release reasons for the offenders released in those two months.

1. Length of Stay

- The average length of stay for males released to parole has been declining since 2004. From 26.8 months in 2004 to 23.2 months in 2007 and to 21.3 months in 2008. This decline is attributable in large part to the early release of many parolees due to AB 510.

- The same trend occurred for females released to parole. In 2004, the average length of stay for females released to parole was 24.9 months, falling distinctly each year to 15.0 months in 2007, and further to 14.1 months in 2008.

- The average length of stay for males discharged from prison declined from 24.3 months in 2005 to 22.0 months in 2006, and then jumped to 29.9 months in 2007. For 2008, the average length of stay dropped slightly to 29.2 months. The large increase from 2006 to 2007 may be due in part to the increase in less serious offenders receiving early parole release, leaving more serious offenders with longer terms.

- The average length of stay for female inmates discharged from prison declined from 16.6 months in 2005 to 14.6 months in 2006, and then rose dramatically to 23.0 months in 2007. In 2008, the average length of stay for females discharged from prison dropped slightly to 22.6 months.

TABLE 11: AVERAGE LENGTH OF STAY FOR MALE INMATES BY RELEASE TYPE: 2005-2008**

Offender Felony Category	LENGTH OF STAY (months)							
	2005		2006		2007		2008**	
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge
A Felons*	104.3	80.6	121.8	79.0	172.4	180.3	122.2	191.4
B Felons	32.2	28.7	30.4	26.3	28.2	40.3	30.2	37.5
C Felons	19.4	17.2	19.4	15.6	14.8	23.4	12.6	19.3
D Felons	18.8	12.5	17.0	13.4	12.0	20.8	10.6	17.1
E Felons	17.3	11.6	16.7	12.5	11.7	18.2	9.6	15.9
Safekeepers	4.0	--	4.5	--	--	8.1	--	5.9
TOTAL	**25.7**	**24.3**	**23.7**	**22.0**	**23.2**	**29.9**	**21.3**	**29.2**

* There are very few A Felon male releases

Note: Any offenders with a life or death sentence (including life w/ parole) were excluded from this table.
Due to the changes to the data file for 2007, the way prisoners were identified as released to parole or discharge in 2007 and beyond is different than in prior years. Results appear comparable.

TABLE 12: AVERAGE LENGTH OF STAY FOR FEMALE INMATES BY RELEASE TYPE: 2005-2008**

Offender Felony Category	LENGTH OF STAY (months)							
	2005		2006		2007		2008**	
	Parole	Discharge	Parole	Discharge	Parole	Discharge	Parole	Discharge
A Felons*	38.3	61.9	--	--	62.9	--	--	--
B Felons	27.5	22.3	24.6	17.9	20.1	32.0	21.2	30.5
C Felons	15.1	11.7	14.9	13.2	13.1	18.4	12.0	16.6
D Felons	15.5	10.5	15.1	11.1	11.1	17.5	8.8	16.6
E Felons	15.0	9.5	15.5	11.9	10.7	15.9	8.9	14.6
TOTAL	**21.3**	**16.6**	**19.4**	**14.6**	**15.0**	**23.0**	**14.1**	**22.6**

* There are very few A Felon female releases

Note: Any offenders with a life or death sentence (including life w/ parole) were excluded from this table.
Due to the changes to the data file for 2007, the way prisoners were identified as released to parole or discharge in 2007 and beyond is different than in prior years. Results appear comparable.

**** Both tables represent the length of stay for offenders released in all months of 2008, excluding July and August. The NDOC data files do not include release reasons for the offenders released in those two months.**

VI. KEY POPULATION PROJECTION ASSUMPTIONS

The inmate population projections contained in this report were completed using the Wizard 2000 simulation model. The model simulates the movements of inmates through the prison system based on known and assumed policies affecting both the volume of admissions into the system and the lengths of stay for inmates who are housed in prison. It simulates the movements of individual cases, by felony class subgroup, and projects each separately. Males and females, as well as inmates sentenced under different sentencing policies, move through the system differently. JFA has made the following key assumptions that have a significant impact on the projection results.

A. Future Release Rates

Future discretionary release rates will reflect what was observed in 2008 (43.5 percent for males and 67.2 percent for females). Future mandatory parole release rates will be consistent with release rates associated with hearings held at that time. During this time frame, the mandatory release rate for males was 53.0 percent and the female rate was 78.4 percent.

For the projections presented in this document, probabilities of parole release are assumed to be the same as those observed in 2008. The release rates associated with each gender and felony class subgroup, for each of five hearings, are assumed to remain unchanged over the forecast horizon. The overall release rate (release probability) is 46.8 percent for males and 70.7 percent for females.

B. Future New Court Commitments: Composition

The composition of future new commitment admissions is assumed to be the same as the composition of new commitment admissions during 2008.

Projections in this report are based on admission and release data provided to JFA Associates by the NDOC for 2008.[11] Future admissions are assumed to "look like" these admissions in terms of the proportion of admitting charges, sentences received, jail credit days earned, good time credit awards, and serving times to parole eligibility. In this time frame, 100 percent of all new commitments were sentenced under SB 416.

TABLE 13 and TABLE 15 present the sentencing profiles for newly committed male and female inmates in 2007 and TABLE 14 and TABLE 16 present the sentencing profiles for newly committed male and female inmates in 2008. These tables include all newly awarded good time established under AB 510, and as a result, the average good time days

[11] The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each felony category for the 10 months of 2008 for which the data were available and applied those proportions to the total new commitments JFA estimated for July and August. These estimations apply only to the number and percent of new commitments admitted. The rest of the data (good time awards, jail credit days, and minimum and maximum sentences) exclude any new commitment admissions in July and August, since they could not be identified.

are much higher than they were prior to 2007.

Looking at the composition of male new admissions in TABLE 13 and TABLE 14, one sees fairly similar results in 2007 and 2008. The average jail time served rose significantly for male new commitment admissions in every felony category.

The average sentences for male admissions remained fairly stable from 2007 to 2008, except for the B felon category. Average maximum and minimum sentences were almost unchanged for C, D, and dropped slightly for E felons. For B felons, who comprise just over half of the male new commitment admissions, the average maximum and minimum sentences in 2008 increased notably as compared to 2007. These increases continue the trend of rising maximum and minimum sentences observed for the B felon category from 2006 to 2007. Due to some slight variations in the way offenders have been categorized by felony level on the new NDOC data extract files[12], results of maximum and minimum sentence comparisons for years prior to 2007 with years since could potentially have an error of 5 to 7 percent. Comparisons of the average minimum and maximum sentences for male new commitment admissions from 2006 to 2008 are illustrated in Figure 10.

Looking at the composition of female new commitments in TABLE 15 and TABLE 16, fairly similar results are seen in 2007 and 2008. Note that the relatively small numbers of female admissions, especially in the A felon category, can make some changes look significant when such a conclusion is not warranted.

The average maximum and minimum sentences for female new commitments remained fairly stable for C, D and E felony categories from 2007 to 2008. The newly admitted B felon females have much higher average maximum and minimum sentences as compared to 2007. Due to some slight variations in the way offenders have been categorized by felony level on the new NDOC data extract files, results of maximum and minimum sentence comparisons for years prior to 2007 with years since could potentially have an error of 3 to 5 percent. Comparisons of the average minimum and maximum sentences for female new commitment admissions from 2006 to 2008 are illustrated in Figure 11.

C. Future Parole Revocation Rates

Future projected parole revocation rates will remain similar to rates observed in 2008.

After a dramatic 27.0 percent increase in the number of parole violators returned from 1999 to 2000[13], the number of parole violators admitted increased or decreased by 5.0

[12] In the past, data files provided to JFA did not include a felony level variable; instead, we generated the felony level from the offense. The current data file included a felony level variable and in a small number of cases, it different from the felony level we generated from the offense. JFA were told that judges occasionally assign a felony level that differs from that which is associated with the offense. In this analysis, JFA utilized the felony level that appeared in the NDOC data file.

[13] In the report JFA issued in March 2001, JFA attempted to explain the dramatic increase in the number of parole violators returned in as the delay of parole releases as a result of SB 416. Under SB 416, many offenders spent more time in prison before being eligible for discretionary parole release. This created a "bottle neck" within the system

percent or less each year from 2000 to 2003. Since 2003, the number of parole violators has declined each year: -8.3 percent in 2004, -7.9 percent in 2005, and -9.4 percent in 2006. We have no count of parole violators for 2007 since the NDOC monthly reports were unavailable for 2007 and the admissions data file from NDOC for 2007 could not provide reliable data for admissions by type.

In 2008, parole violator admissions declined by -23.7 percent from 2006. The decrease in parole violations are a result of AB 510 which shortened the time on parole for most offenders. With less time on parole, there is less opportunity for revocation. In the forecast presented, JFA is assuming parole violation levels will stabilized at 2008 levels.

NEVADA DEPARTMENT OF CORRECTIONS
PAROLE VIOLATORS ADMITTED BY YEAR: 1998-2008

Year	Total Parole Violators	Percent Change
1998	793	
1999	792	-0.1
2000	1,006	+27.0
2001	972	-3.4
2002	1,021	+5.0
2003	1,048	+2.6
2004	961	-8.3
2005	885	-7.9
2006	802	-9.4
2007*		
2008 **	612	-23.7 (change from 2006)

* This table is usually populated with counts from the NDOC monthly reports, but those were unavailable for 2007. Furthermore, the admissions data file for 2007 from NDOC provided unreliable data for admissions by type, so the parole violator admissions could not be established from that source either.
** The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

D. Future Admissions Counts

JFA has developed projections for new commitment admissions utilizing a combination of CY 2008 trends and average annual percent increase for males and females, respectively, over the past 10 years.

Over the forecast period, male new commitment admissions are projected to increase at an average annual rate of 1.4 percent (with slower projected growth in

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and a dip in the number of parole violators released from 1997 to 1999. Since early 1999, the number of parole releases grew, creating a larger pool of offenders to violate.

the first few years, and consistent 1.8 percent growth in the later years). Female new commitment admissions are projected to increase by 0.5 percent each year from 2009 through the year 2019.

Male new commitment admissions increased each year from 2002 to 2006. These several years of increases, however, have not been steady. In 2002 and 2003, new commitment admissions for males increased by 3.6 and 2.9 percent, respectively. Then, in 2004, they rose dramatically by 16.1 percent (with most of this increase occurring during the early part of 2004). In 2005, male new commitments increased by a far smaller 5.5 percent, and then by a much larger 11.2 percent in 2006. JFA does not know the count of male new commitments in 2007, but male new commitment admissions declined approximately[14] -2.6 percent from 2006 to 2008.

Over the past decade, female new commitment admissions have fluctuated widely with several years of increases and decreases of varying magnitudes. From 2002 to 2003, new commitment admissions to prison for females decreased by -6.0 percent, followed by a staggering increase of 29.3 percent in 2004 (again, with most of the increase taking place in early 2004). In 2005, female new commitments grew by a much smaller 6.0 percent, and then by a far larger 23.5 percent in 2006. Again, JFA does not know the count of female new commitments in 2007, but female new commitment admissions declined approximately -16.8 percent from 2006 to 2008.

The male inmate population forecast assumes that the number of annual male new commitment admissions will increase from approximately 4,622 in 2008 to 5,326 in 2019. (See Table 17.) For the period from 2009 until 2019, the male admissions are projected to increase by an average of 70 inmates per year with an average increase of 1.4 percent per year.

The female inmate population forecast assumes that the number of annual female new commitment admissions will increase from approximately 621 in 2008 to 656 in 2019. (See Table 17.) For the period from 2009 until 2019, the female admissions are projected to increase by an average of 3 inmates per year with an average increase of 0.5 percent per year.

[14] Again, since the admissions datafile for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August. Thus, the full count of new commitments is an estimate.

TABLE 13: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: MALES: 2007

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons*	211	4.8%	28.4	415.4	Life	144.1
B Felons	2,389	54.8%	28.4	162.5	91.0	33.6
C Felons	781	17.9%	27.8	116.6	44.1	11.7
D Felons	659	15.1%	28.1	101.9	38.6	10.0
E Felons	322	7.4%	29.1	101.5	39.0	9.0
Subtotal	4,362	100.0%				
Missing	23					
Total	4,386					

* A Felon category includes all offenders sentenced to life
In 2007, the way good time days per month were calculated changed.
2007 figures includes all newly awarded good time established under AB 510.

TABLE 14: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: MALES: 2008**

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons*	210	4.9%	28.1	842.7	Life	153.2
B Felons	2,156	50.2%	29.1	229.4	98.2	36.8
C Felons	837	19.5%	28.2	131.4	44.3	12.1
D Felons	794	18.5%	28.1	120.2	38.4	9.6
E Felons	296	6.9%	29.1	117.1	37.0	8.3
Subtotal	4,293	100.0%				
Missing	25					
Total	4,318					

* A Felon category includes all offenders sentenced to life
****** The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each felony category for the 10 months of 2008 for which the data were available and applied those proportions to the total new commitments we estimated for July and August. These estimations apply only to the number and percent admitted columns. The rest of the columns exclude any new commitment admissions in July and August, since they could not be identified.

TABLE 15: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: FEMALES: 2007

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons*	21	3.1%	28.4	555.5	Life	166.8
B Felons	281	41.5%	30.4	137.5	72.6	25.2
C Felons	134	19.8%	29.3	110.8	42.8	10.6
D Felons	150	22.2%	29.6	100.7	38.0	9.3
E Felons	91	13.4%	28.9	110.5	36.8	9.1
Subtotal	677	100.0%				
Missing	28					
Total	705					

* A Felon category includes all offenders sentenced to life
In 2007, the way good time days per month were calculated changed.
2007 figures includes all newly awarded good time established under AB 510.

TABLE 16: NEW COURT COMMITMENT ADMISSION CHARACTERISTICS BY CATEGORY: FEMALES: 2008**

Offender Felony Category	Number Admitted	Percent Admitted	Average Good Time Days Per Month	Average Jail Time (Days)	Average Maximum Sentence (Months)	Average Minimum Sentence (Months)
A Felons*	9	1.5%	28.9	723.6	Life	150.0
B Felons	255	41.5%	30.9	150.4	88.1	32.9
C Felons	117	19.0%	28.9	115.1	41.7	11.1
D Felons	157	25.5%	29.6	93.5	37.6	8.7
E Felons	77	12.5%	30.0	115.4	36.4	7.8
Subtotal	615	100.0%				
Missing	0					
Total	615					

* A Felon category includes all offenders sentenced to life
****** The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each felony category for the 10 months of 2008 for which the data were available and applied those proportions to the total new commitments we estimated for July and August. These estimations apply only to the number and percent admitted columns. The rest of the columns exclude any new commitment admissions in July and August, since they could not be identified.

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TABLE 17: HISTORICAL AND PROJECTED NEW COMMITMENTS: 1998-2019

Year	Males	Females	Total
1998	3,515	446	3,961
1999	3,229	441	3,670
2000	3,424	490	3,914
2001	3,265	430	3,695
2002	3,384	469	3,853
2003*	3,481	441	3,922
2004	4,043	570	4,613
2005	4,267	604	4,871
2006	4,744	746	5,490
2007**			
2008^**	4,622	621	5,243
	Projected 1.4% growth	Projected 0.5% growth	Total projected growth
2009	4,622	624	5,246
2010	4,622	627	5,249
2011	4,659	630	5,289
2012	4,715	633	5,348
2013	4,786	637	5,422
2014	4,872	640	5,512
2015	4,959	643	5,602
2016	5,049	646	5,695
2017	5,140	649	5,789
2018	5,232	653	5,885
2019	5,326	656	5,982
Numeric Change 1998 – 2008[#]	1,107	175	1,282
Percent Change 1998 – 2008[#]	31.5%	39.2%	32.4%
Average Annual Percent Change 1998 – 2008[#]	3.0%	4.2%	3.1%
Numeric Change 2009 – 2019	704	32	736
Percent Change 2009 – 2019	15.2%	5.1%	14.0%
Average Annual Percent Change 2009– 2019	1.4%	0.5%	1.3%

*Male new court commitment numbers for 2003 do not include 367 offenders admitted under contract from Wyoming and Washington State.

** This table is usually populated with data from NDOC monthly reports, but as those were unavailable for 2007, and the admissions datafile for 2007 from NDOC provided unreliable data for admissions by type, JFA could not report the count of new commitment admissions for 2007.

^ The admissions datafile for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

[#] In order to calculate average annual percent change for the 10-year time frame, JFA estimated the admissions subcategories for 2007. To do so, we utilized the proportion of admissions in each subcategory for 2006 and 2008 (combined), and then applied those proportions to the total admissions in 2007.

VII. PRISON POPULATION PROJECTIONS

This section contains the inmate population projections based on the assumptions set forth above. Projections are presented for male and female inmates, and the total inmate population.

TABLE 20 presents the summary table of male, female and total population projections from 2009 to 2019 for the forecast with the assumption that new commitment admissions will grow by 1.5 percent for male admissions (on an average annual basis) and 0.5 percent for female admissions each year from 2009 to 2019.

A. Projected Male Inmate Population

TABLE 18 displays a summary of the historical and projected male inmate population for the period 1998 to 2019. Neither the actual population counts for 2003 and 2004 nor the forecasted population through 2019 includes inmates transferred into Nevada and held on contract from Wyoming and Washington State.

Figure 12 presents the March 2009 forecasts of male new commitment admissions and stock population.

- In 2019, 14,344 male offenders are projected to be housed in the Nevada Department of Corrections system.

- The male inmate prison population was 12,223 at the end of 2008. The population is projected to increase from 12,223 inmates at the end of 2008 to 12,998 in 2014 and to 14,344 inmates by the end of 2019. The projected growth represents average increases of 135 inmates, or 1.1 percent per year through the year 2014. Through the year 2019, this projected growth represents average increases of 202 inmates, or 1.5 percent, per year.

- The male forecast (based on 1.4 percent annual growth in male new commitments) is dramatically lower than the November 2008 forecast (just over 3,300 fewer in 2019. The decreased forecast is due to much lower admissions assumption, decreased parole violations and increased parole releases.

TABLE 18: HISTORICAL AND PROJECTED INMATE POPULATION: MALES: 1998 – 2019

Year	Historical	
1998	8,908	
1999	8,868	
2000	9,316	
2001	9,520	
2002	9,612	
2003*	9,736	
2004*	10,490	
2005	11,075	
2006	12,003	
2007	12,245	
2008	12,223	
		Projected
2009		12,325
2010		12,401
2011		12,542
2012		12,651
2013		12,766
2014		12,998
2015		13,241
2016		13,477
2017		13,688
2018		14,006
2019		14,344
Numeric Change 1998 –2008	3,315	
Percent Change 1998 –2008	37.2%	
Average Annual Percent Change 1998 –2008	3.3%	
Numeric Change 2009 – 2019		2,019
Percent Change 2009 – 2019		16.4%
Average Annual Percent Change 2009 – 2019		1.5%

*Numbers represent end of calendar year figures.

Male year-end 2003 and 2004 figures do not include 363 prisoners held on contract from Wyoming and Washington State.

B. Projected Female Inmate Population

TABLE 19 displays a summary of the historical and projected female inmate population for the period 1998 to 2019.

Figure 13 presents the March 2009 forecasts of female new commitment admissions and stock population.

- In 2019, 1,093 female offenders are projected to be housed in the Nevada Department of Corrections system.

- The female inmate prison population was 1,042 inmates at the end of 2008. The population is projected to increase from 1,042 inmates at the end of 2008 to 1,059 in 2014 and 1,093 inmates by the end of 2019. This projected growth represents average increases of 5 inmates, or 0.5 percent, per year through the year 2019.

- The female forecast (based on 0.5 percent annual growth in female new commitments) is slightly lower than the May 2008 forecast with just over 400 fewer offenders in 2018. The decreased forecast is due to a lower admissions assumptions, decreased parole revocations and increased parole releases.

TABLE 19: HISTORICAL AND PROJECTED INMATE POPULATION: FEMALES: 1998 – 2019

Year	Historical	
1998	743	
1999	737	
2000	856	
2001	834	
2002	848	
2003	816	
2004	949	
2005	1,008	
2006	1,183	
2007	1,096	
2008	1,042	
		Projected
2009		1,044
2010		1,046
2011		1,049
2012		1,052
2013		1,056
2014		1,059
2015		1,060
2016		1,070
2017		1,079
2018		1,089
2019		1,093
Numeric Change 1998 –2008	299	
Percent Change 1998 –2008	40.2%	
Average Annual Percent Change 1998 –2008	3.8%	
Numeric Change 2009 – 2019		49
Percent Change 2009 – 2019		4.7%
Average Annual Percent Change 2009 – 2019		0.5%

Numbers represent end of calendar year figures.

TABLE 20: ACTUAL AND PROJECTED INMATE POPULATION: 2008 – 2019

Year	Male Population	Female Population	Total Population
2008	12,223	1,042	13,265
2009	12,325	1,044	13,369
2010	12,401	1,046	13,447
2011	12,542	1,049	13,591
2012	12,651	1,052	13,703
2013	12,766	1,056	13,822
2014	12,998	1,059	14,057
2015	13,241	1,060	14,301
2016	13,477	1,070	14,547
2017	13,688	1,079	14,767
2018	14,006	1,089	15,095
2019	14,344	1,093	15,437
Numeric Change 2009 – 2019	2,019	49	2,068
Percent Change 2009 – 2019	16.4%	4.7%	15.5%
Average Annual Percent Change 2009 – 2019	1.5%	0.5%	1.5%

Numbers represent projections of end of calendar year figures.

APPENDIX A: FIGURES

FIGURE 1: Nevada State Demographer's Population Projections for Nevada: 2009-2019

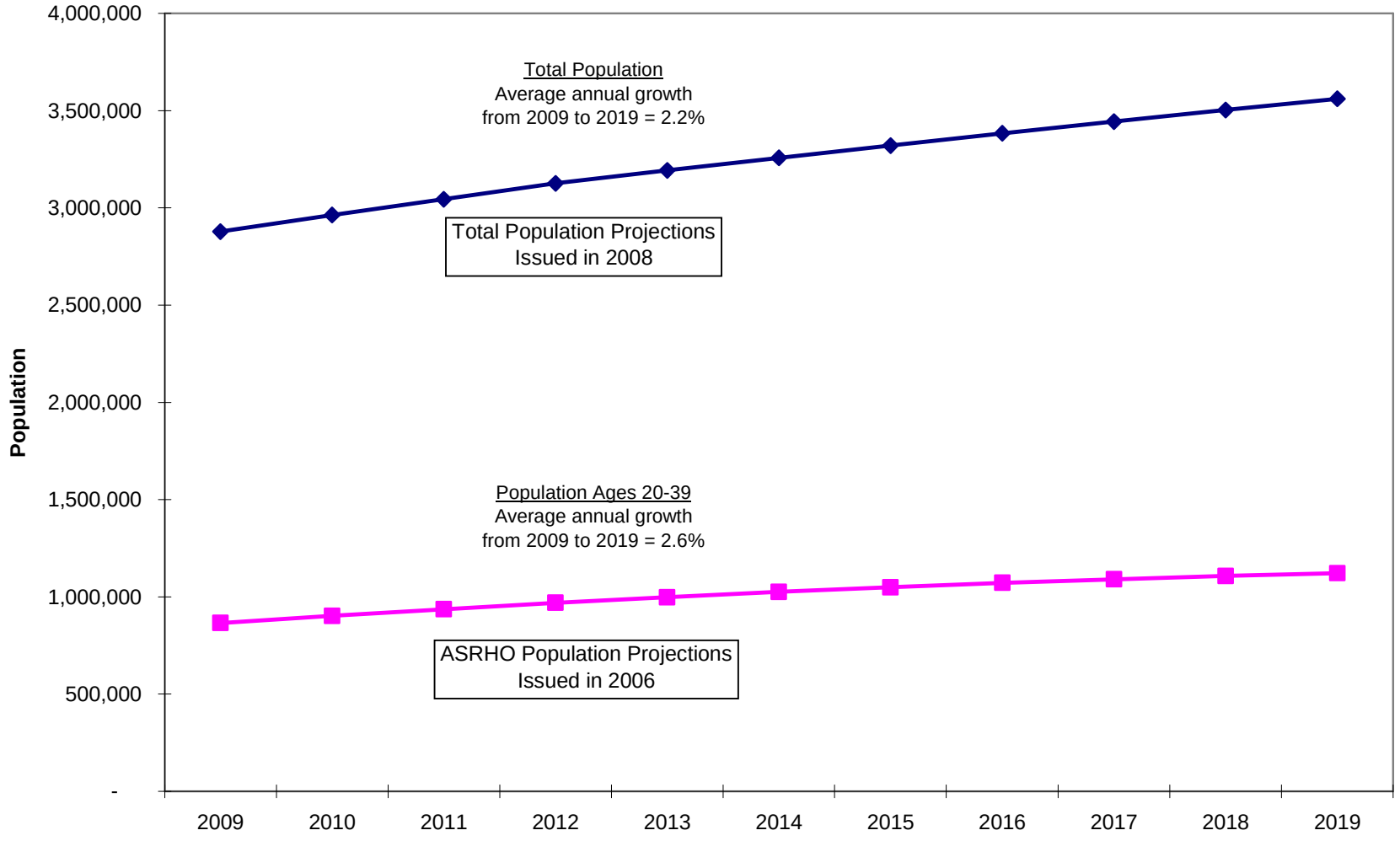


FIGURE 2: Reported Crime and Population: Nevada 1990-2007

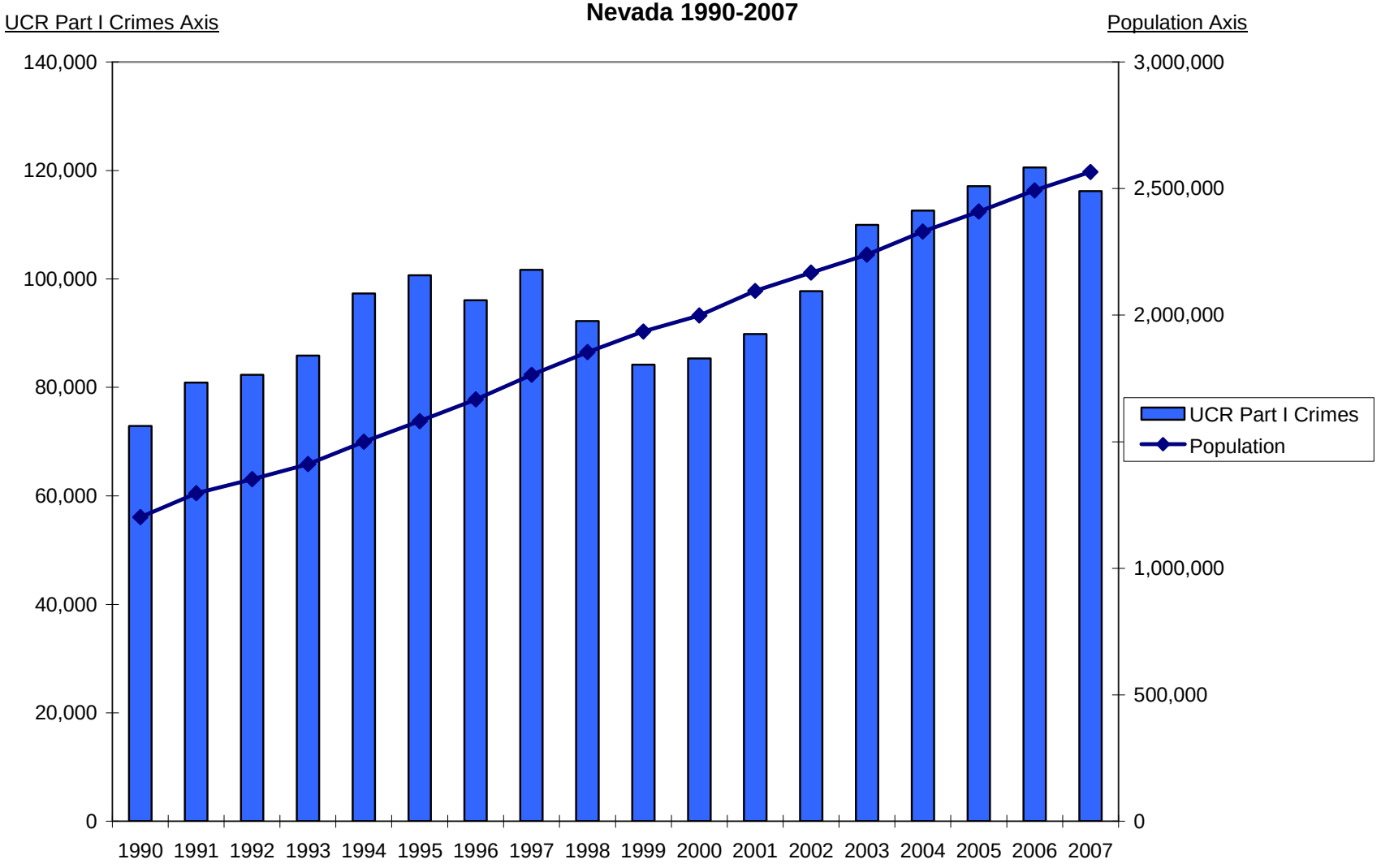


FIGURE 2A: Reported Crime and Population:
Las Vegas MPD Jurisdiction 1995-2007

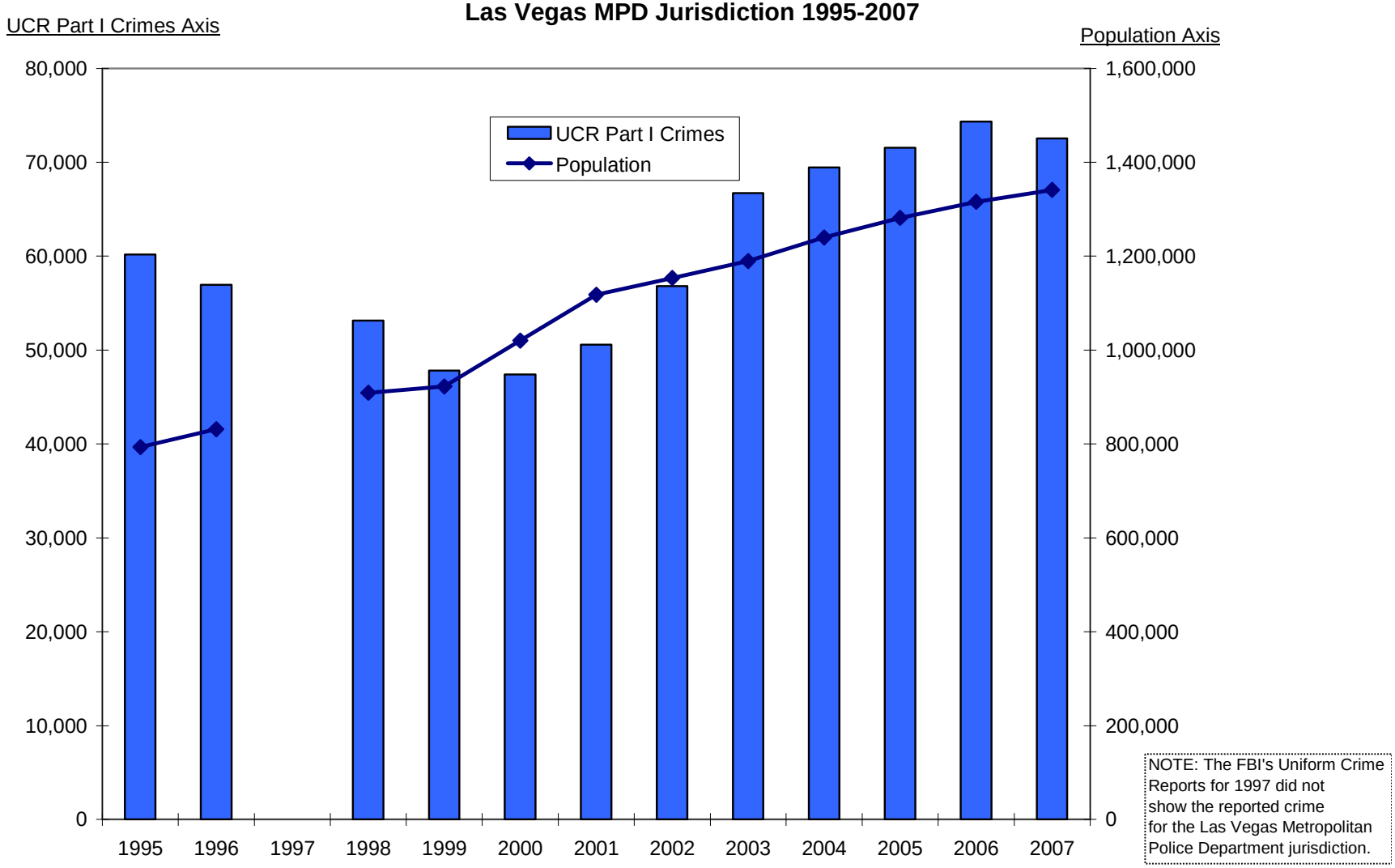


FIGURE 3: Accuracy of JFA's November 2008 Forecast
Total Male Inmate Population: January 2008 to January 2009

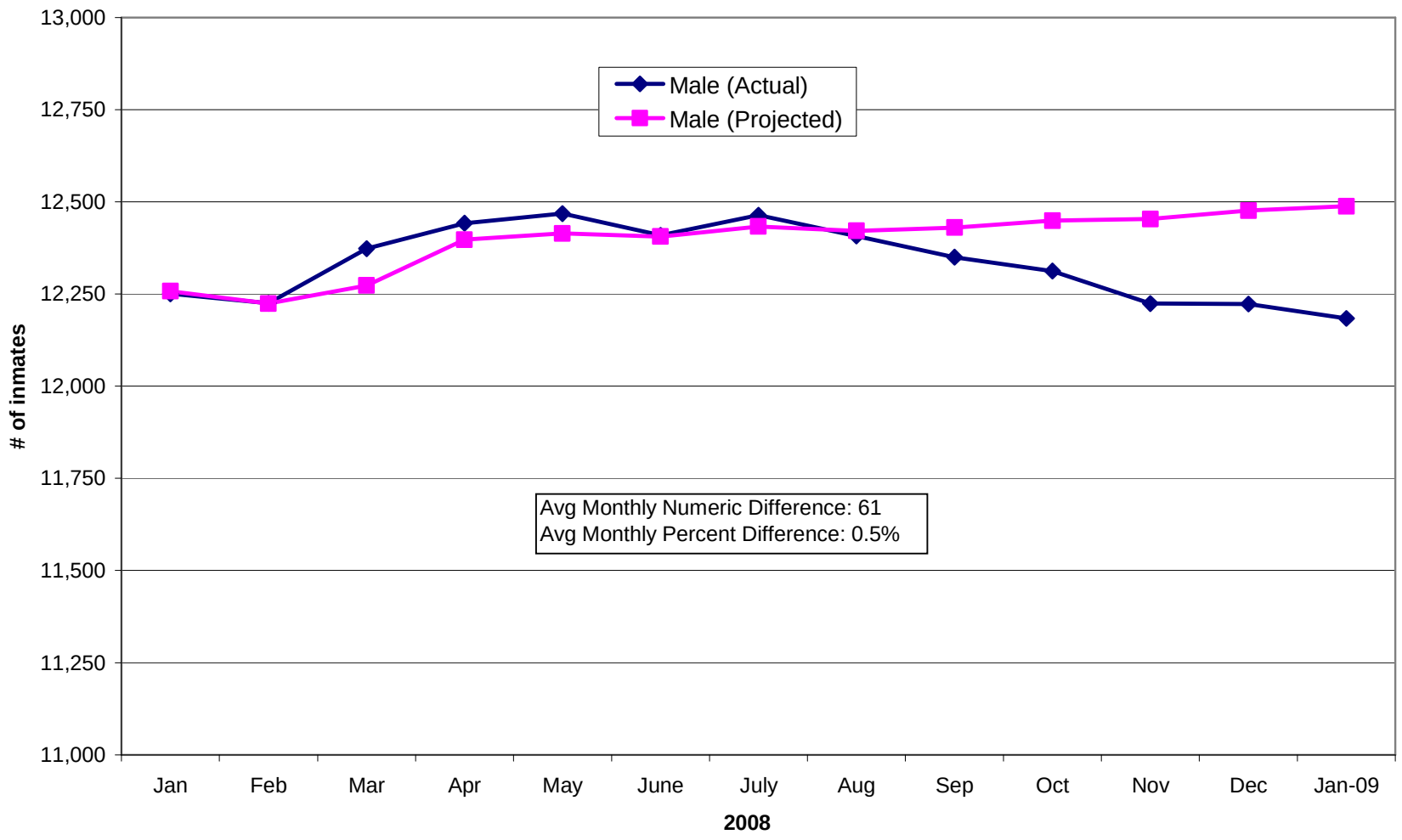


FIGURE 4: Accuracy of JFA's November 2008 Forecast
Total Female Inmate Population: January 2008 to January 2009

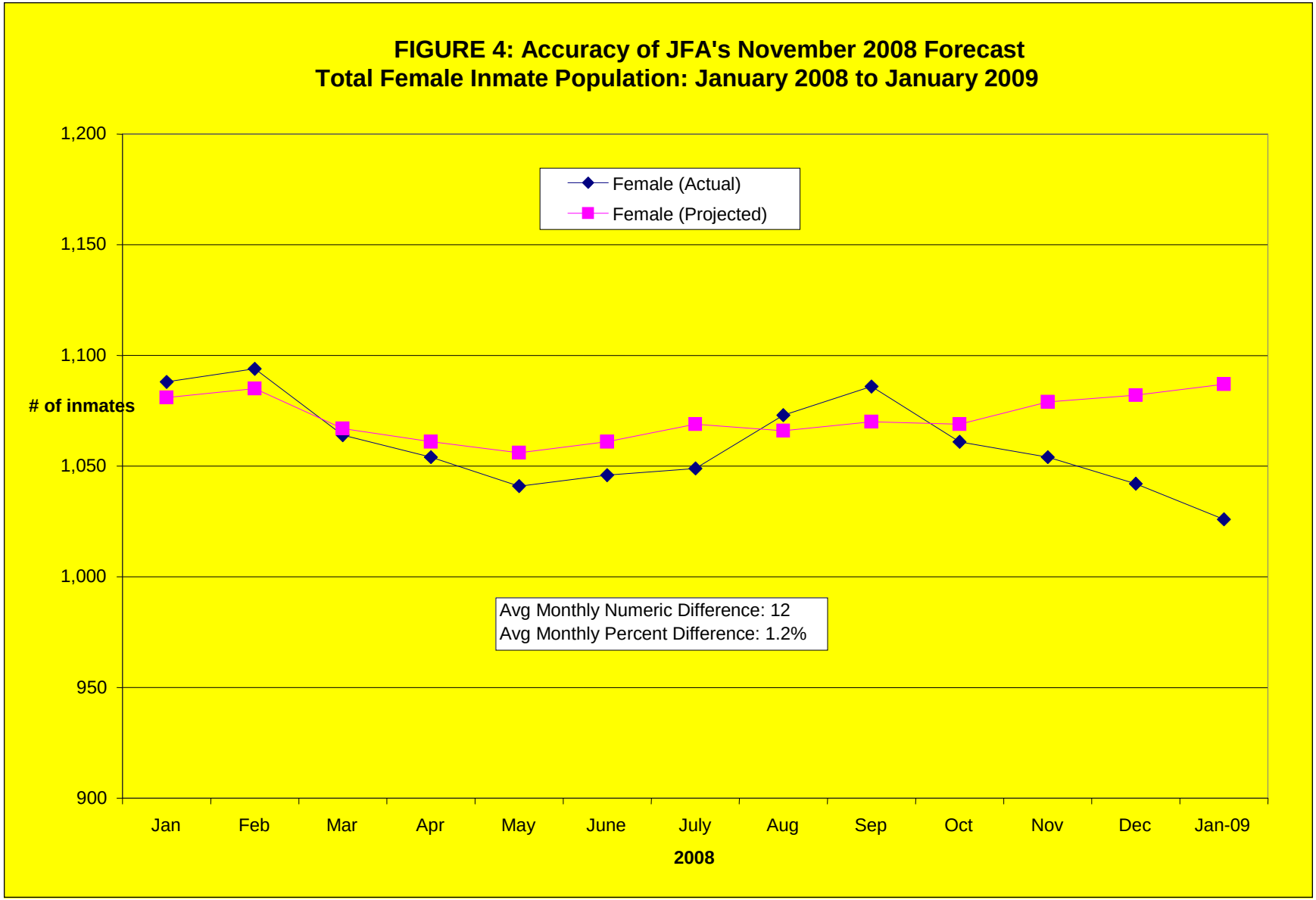
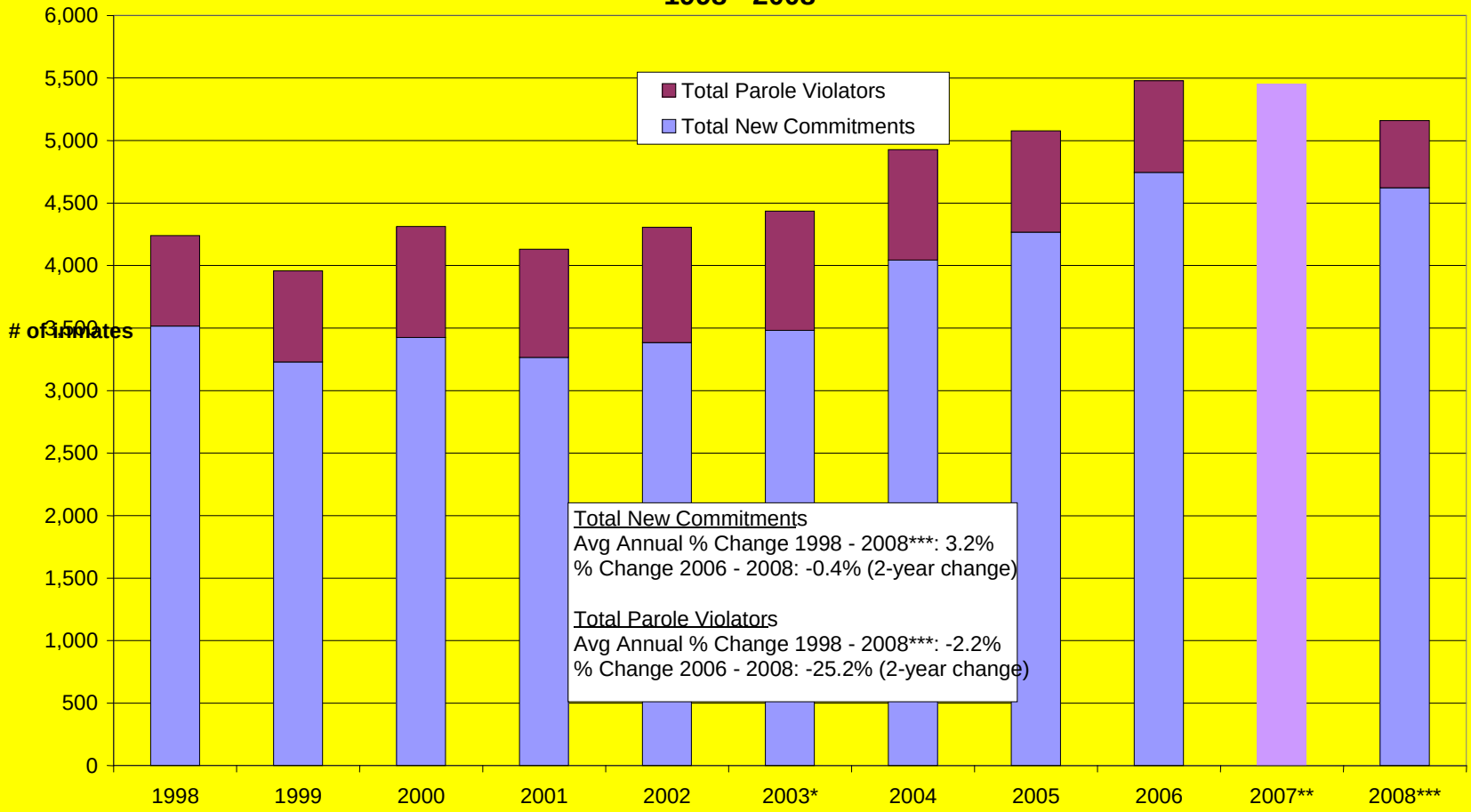
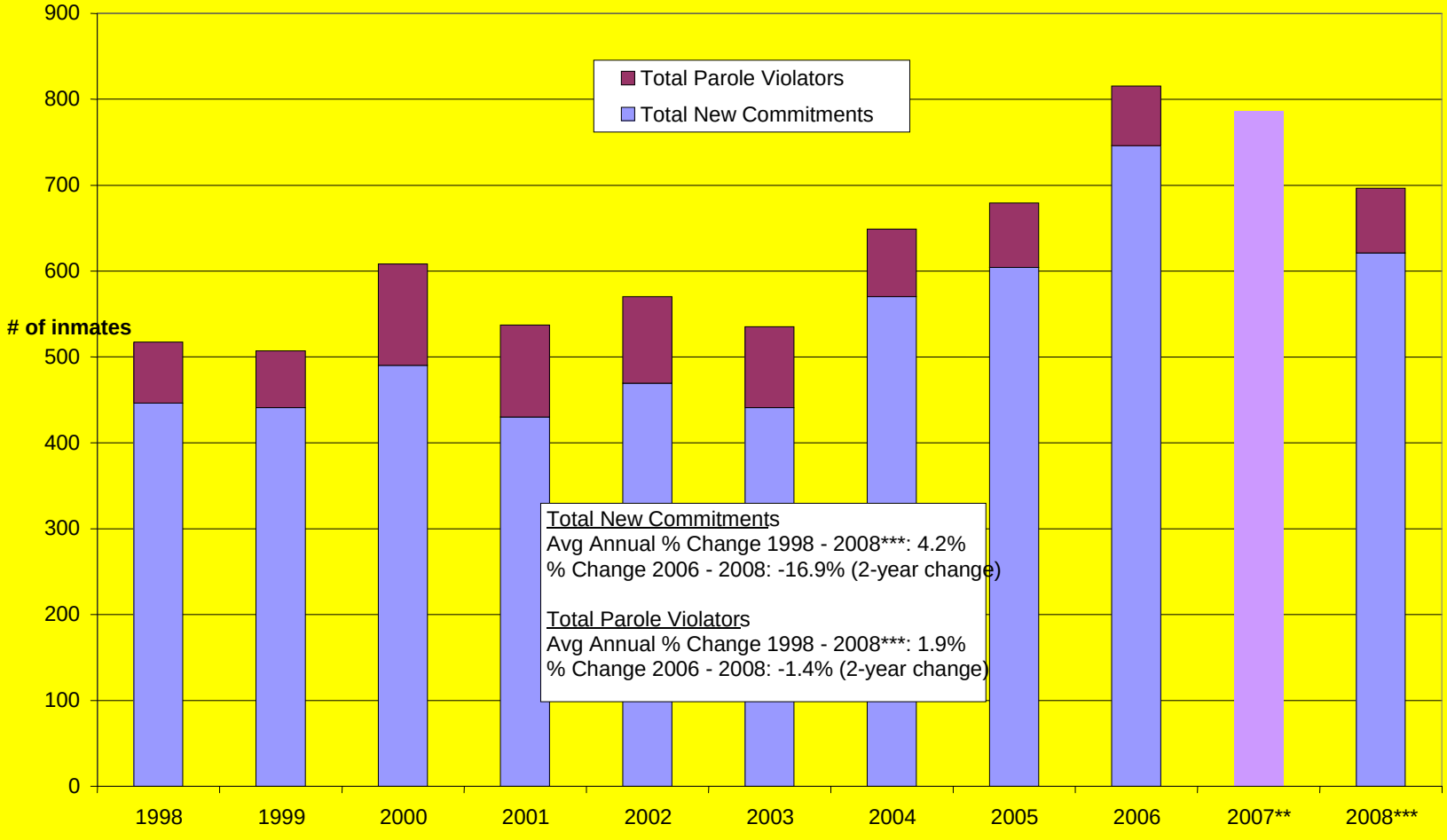


FIGURE 5: Historical Male Admissions to Prison 1998 - 2008***



* Male new court commitment numbers for 2003 do not include 367 offenders admitted under contract from Wyoming and Washington State.
** 2007 data represents total male admissions.
*** The admissions datafile for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

FIGURE 6: Historical Female Admissions to Prison 1998 - 2008***



** 2007 data represents total female admissions.
*** The admissions data file for 2008 did not contain admissions by type for July and August 2008. JFA utilized the proportion of admissions in each subcategory for the 10 months of 2008 for which the data were available and applied those proportions to the total admissions for July and August to obtain estimated subcategory counts for July and August.

FIGURE 7: Parole Release Rates: 2003 - 2008

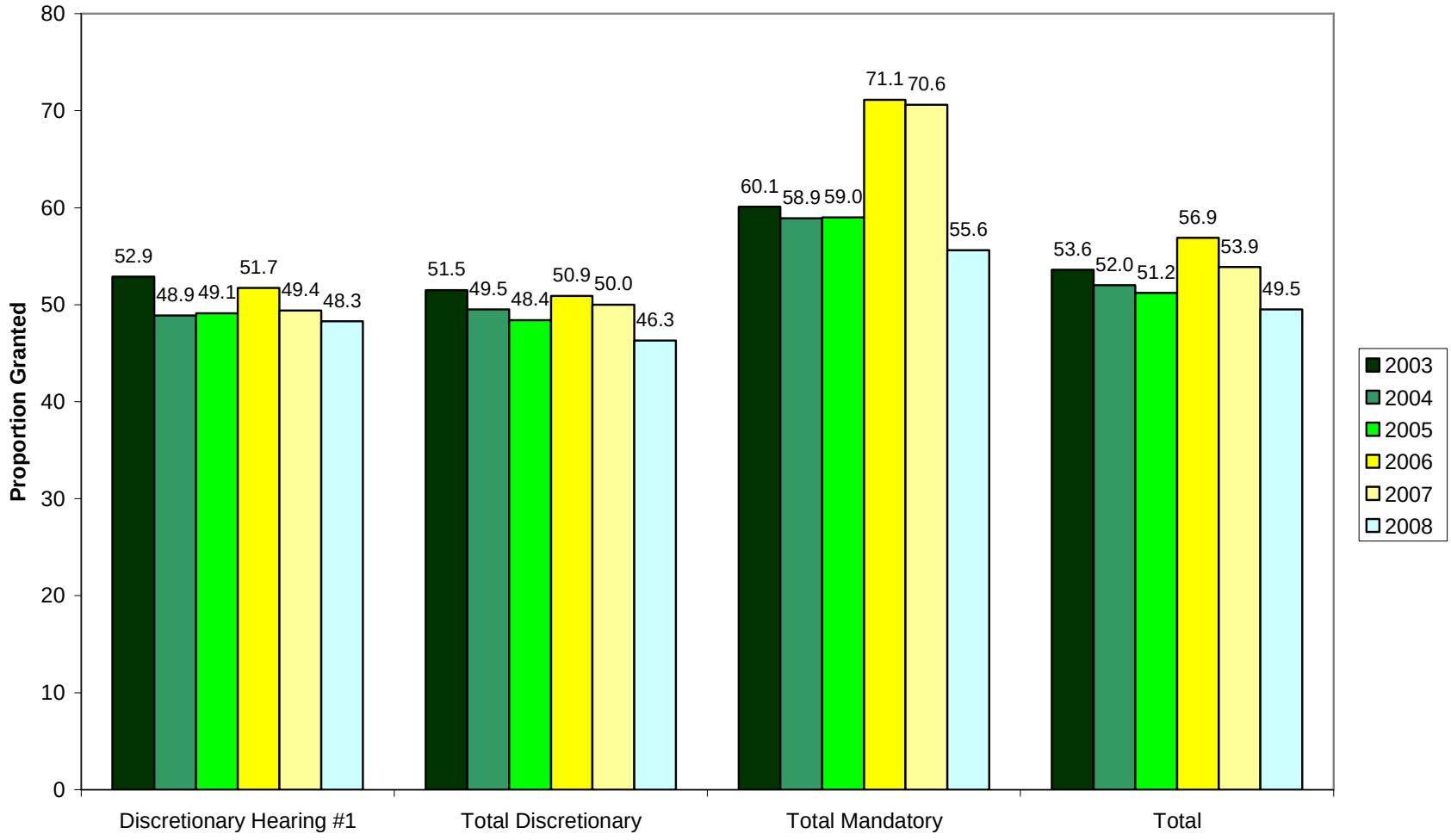


FIGURE 8: Parole Release Rates by Gender: 2005 - 2008

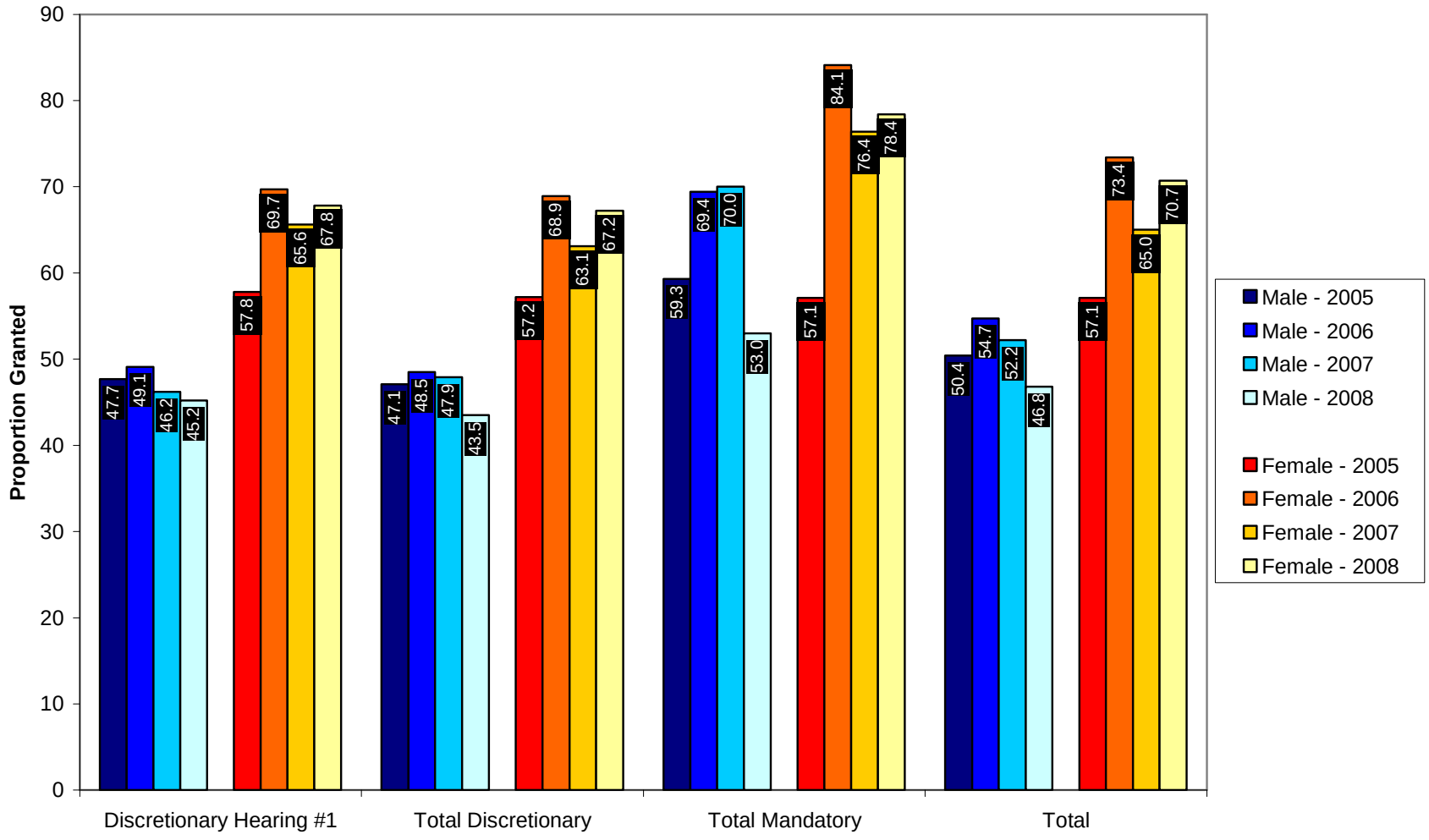
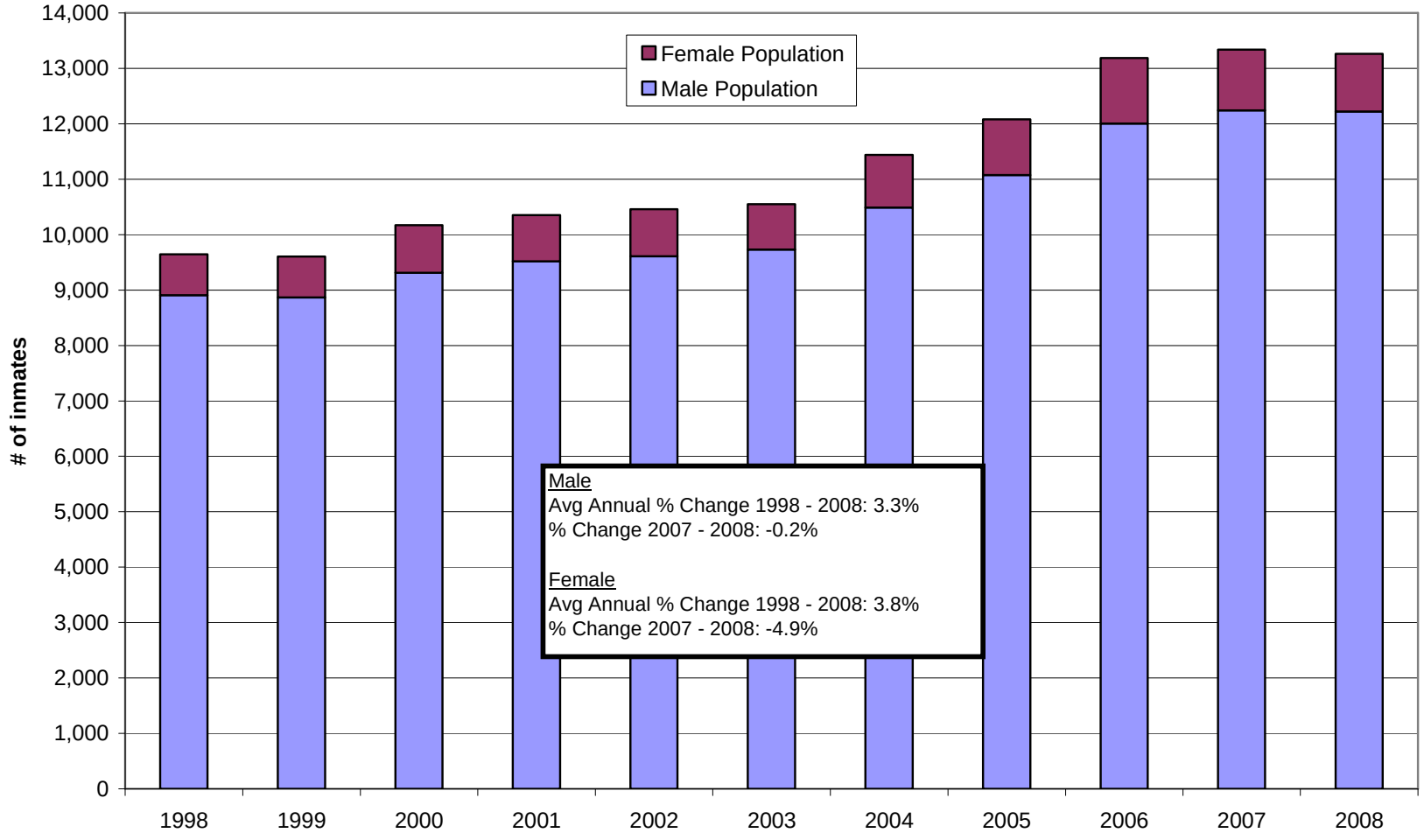


FIGURE 9: Historical End-of-Year Inmate Population by Gender
1998 - 2008



* Male 2003 and 2004 figures do not include prisoners held on contract from Wyoming and Washington State

FIGURE 10: Average Minimum and Maximum Sentences by Felony Category
Male New Commitment Admissions to Prison: 2006 - 2008*

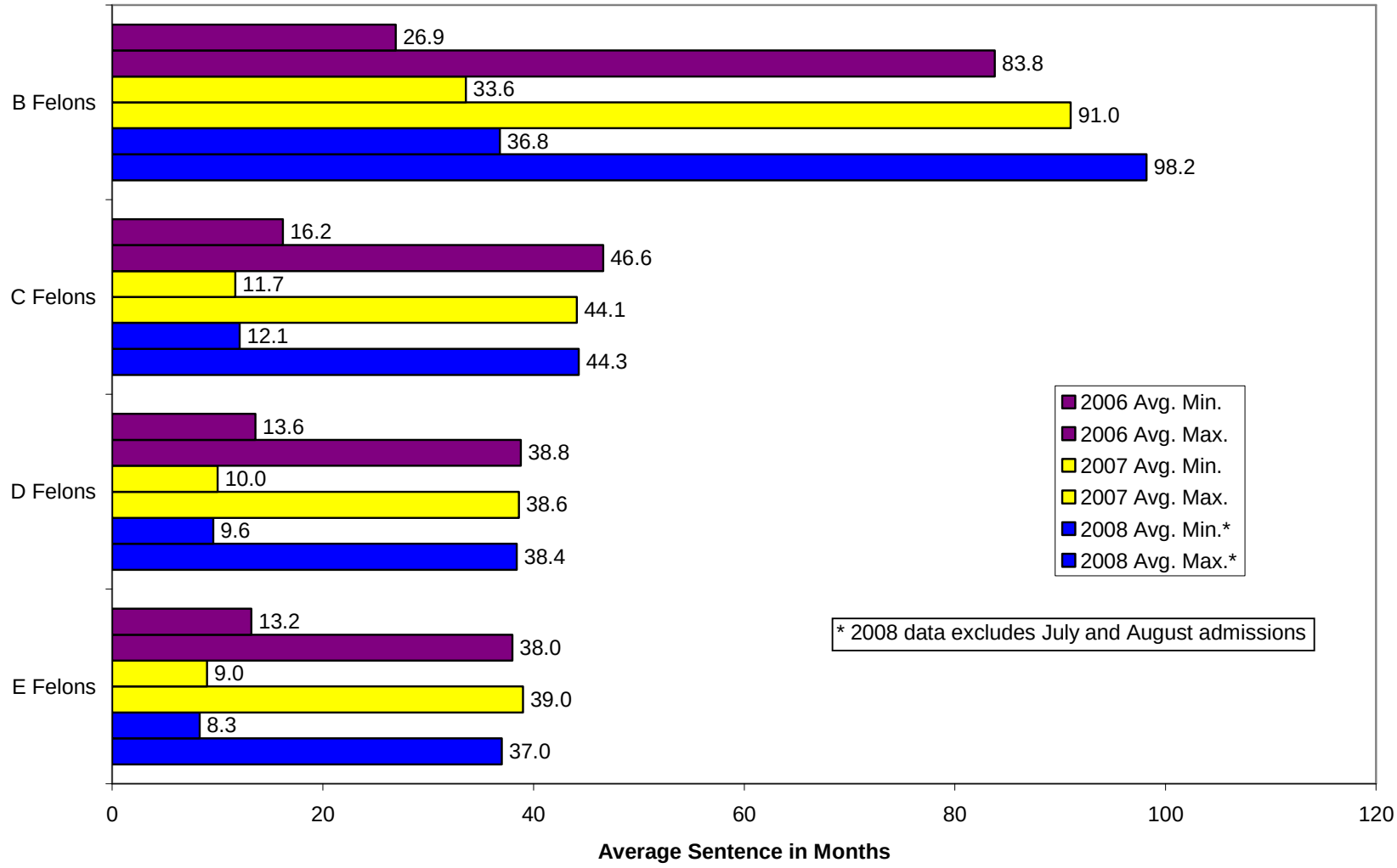


FIGURE 11: Average Minimum and Maximum Sentences by Felony Category
Female New Commitment Admissions to Prison: 2006 - 2008*

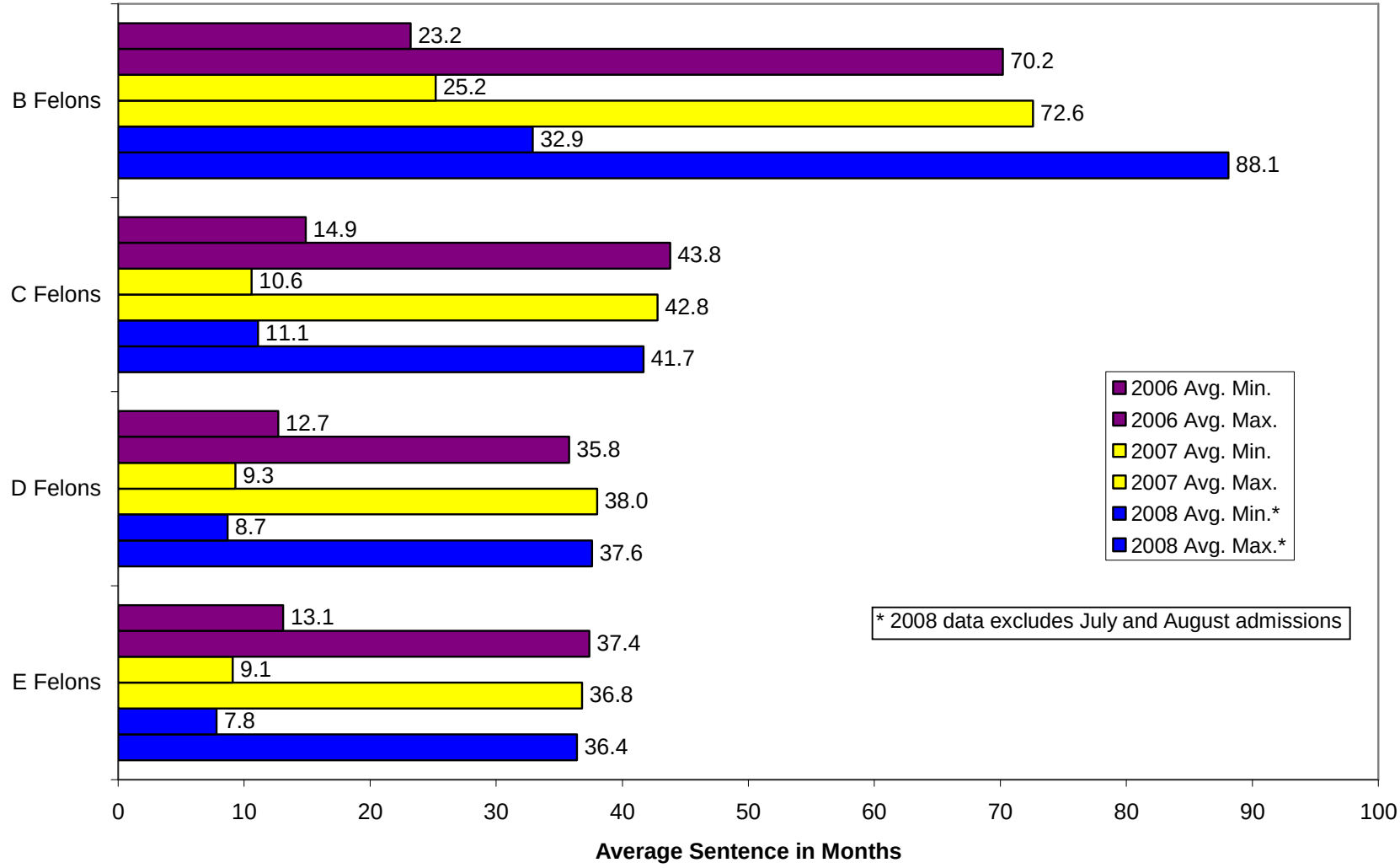


FIGURE 12: Projected Male Admissions and Stock Population
March 2009 Forecasts

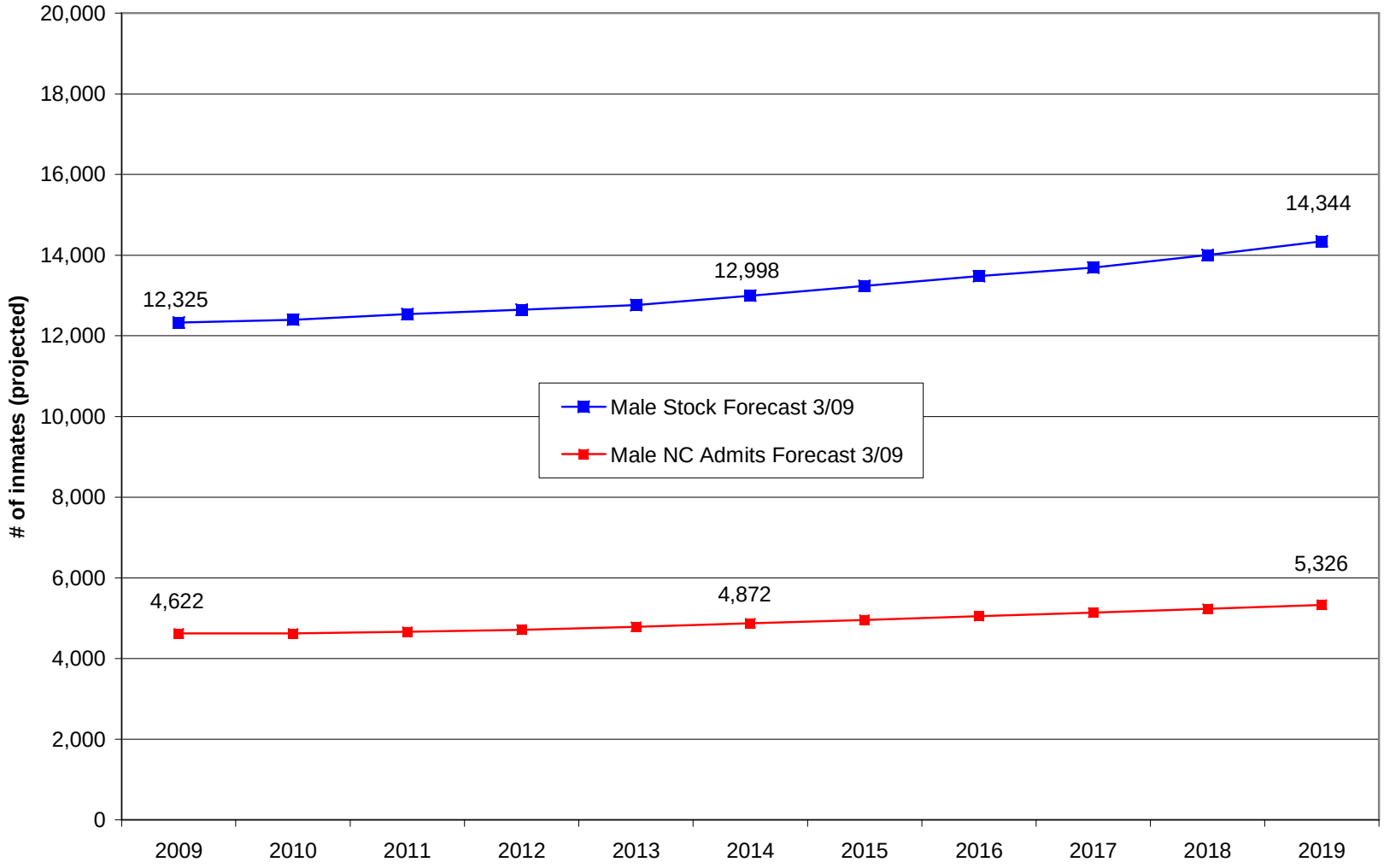
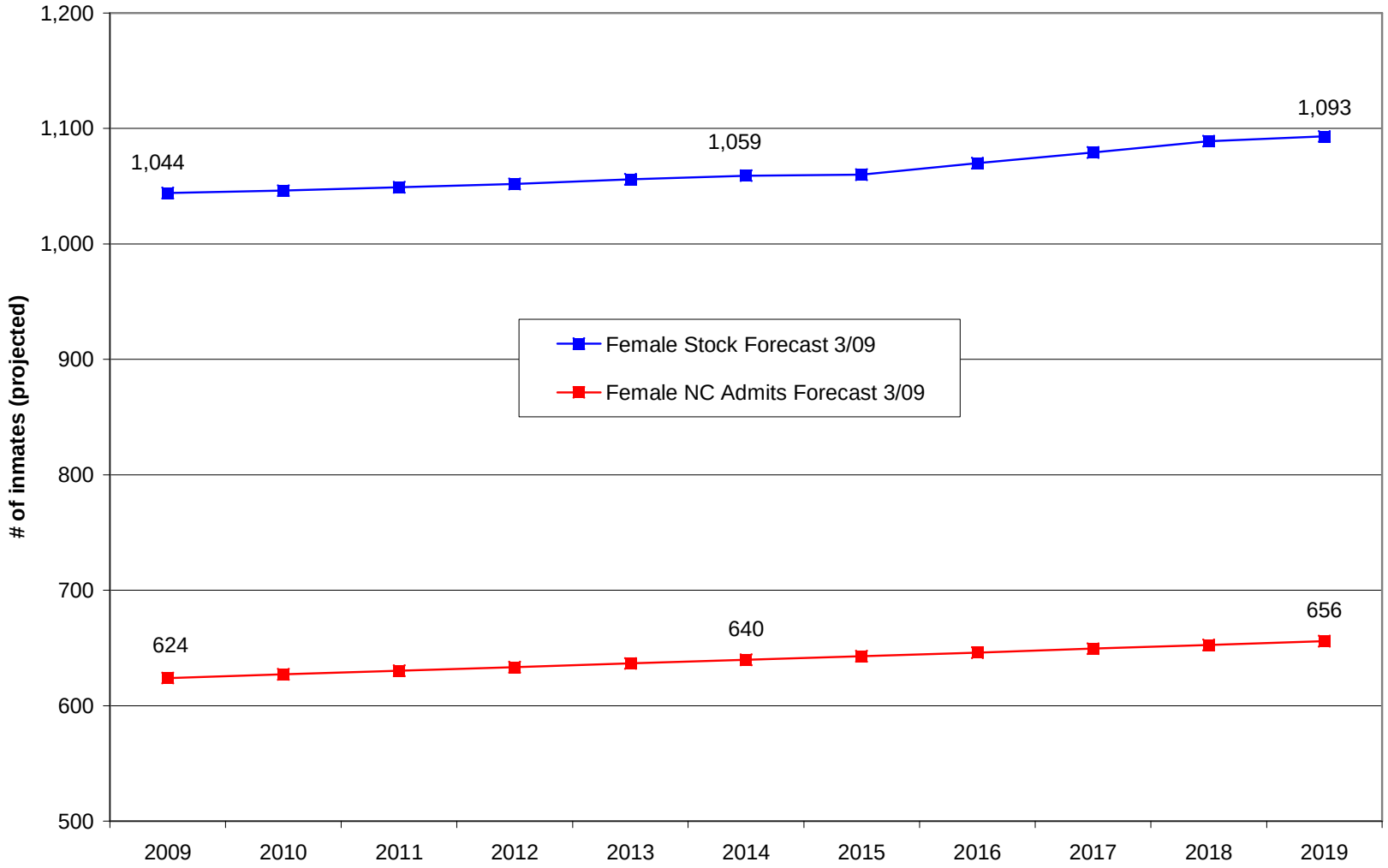


FIGURE 13: Projected Female Admissions and Stock Population
March 2009 Forecasts



APPENDIX B: PROJECTIONS

MARCH 2009 FORECAST

Table A: Total Male and Female Population												
Year	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
2009	13,253	13,262	13,314	13,321	13,304	13,331	13,336	13,328	13,348	13,361	13,367	13,369
2010	13,271	13,246	13,288	13,282	13,278	13,378	13,390	13,400	13,409	13,412	13,429	13,447
2011	13,465	13,490	13,474	13,474	13,476	13,481	13,533	13,547	13,552	13,571	13,587	13,591
2012	13,559	13,538	13,602	13,612	13,597	13,612	13,647	13,635	13,667	13,697	13,669	13,703
2013	13,716	13,725	13,730	13,718	13,723	13,740	13,808	13,803	13,802	13,826	13,852	13,822
2014	13,826	13,827	13,862	13,851	13,826	13,896	13,968	14,000	14,003	14,063	14,081	14,057
2015	14,057	14,071	14,111	14,105	14,115	14,188	14,200	14,279	14,287	14,326	14,291	14,301
2016	14,276	14,278	14,316	14,334	14,322	14,370	14,428	14,473	14,480	14,554	14,572	14,547
2017	14,517	14,541	14,604	14,612	14,624	14,645	14,707	14,745	14,775	14,825	14,753	14,767
2018	14,761	14,758	14,791	14,819	14,793	14,857	14,899	14,980	14,987	15,051	15,110	15,095
2019	15,102	15,081	15,190	15,209	15,194	15,195	15,302	15,341	15,377	15,427	15,439	15,437

Table B: Total Male Population												
Year	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
2009	12,230	12,241	12,279	12,285	12,276	12,302	12,312	12,305	12,314	12,318	12,318	12,325
2010	12,222	12,196	12,241	12,240	12,240	12,341	12,351	12,360	12,368	12,375	12,388	12,401
2011	12,414	12,427	12,424	12,426	12,431	12,441	12,494	12,517	12,520	12,533	12,545	12,542
2012	12,520	12,497	12,560	12,570	12,543	12,564	12,588	12,589	12,612	12,645	12,613	12,651
2013	12,654	12,659	12,668	12,670	12,671	12,686	12,749	12,748	12,748	12,776	12,795	12,766
2014	12,765	12,767	12,808	12,793	12,768	12,841	12,907	12,937	12,946	13,002	13,023	12,998
2015	12,998	13,015	13,053	13,049	13,054	13,125	13,148	13,222	13,229	13,265	13,231	13,241
2016	13,218	13,223	13,255	13,270	13,258	13,305	13,363	13,408	13,410	13,487	13,513	13,477
2017	13,443	13,471	13,537	13,548	13,554	13,571	13,636	13,669	13,699	13,751	13,675	13,688
2018	13,678	13,672	13,711	13,731	13,704	13,772	13,828	13,899	13,905	13,964	14,010	14,006
2019	14,008	13,991	14,093	14,121	14,110	14,108	14,219	14,256	14,292	14,340	14,349	14,344

Table C: Total Female Population												
Year	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
2009	1,023	1,021	1,035	1,036	1,028	1,029	1,024	1,023	1,034	1,043	1,049	1,044
2010	1,049	1,050	1,047	1,042	1,038	1,037	1,039	1,040	1,041	1,037	1,041	1,046
2011	1,051	1,063	1,050	1,048	1,045	1,040	1,039	1,030	1,032	1,038	1,042	1,049
2012	1,039	1,041	1,042	1,042	1,054	1,048	1,059	1,046	1,055	1,052	1,056	1,052
2013	1,062	1,066	1,062	1,048	1,052	1,054	1,059	1,055	1,054	1,050	1,057	1,056
2014	1,061	1,060	1,054	1,058	1,058	1,055	1,061	1,063	1,057	1,061	1,058	1,059
2015	1,059	1,056	1,058	1,056	1,061	1,063	1,052	1,057	1,058	1,061	1,060	1,060
2016	1,058	1,055	1,061	1,064	1,064	1,065	1,065	1,065	1,070	1,067	1,059	1,070
2017	1,074	1,070	1,067	1,064	1,070	1,074	1,071	1,076	1,076	1,074	1,078	1,079
2018	1,083	1,086	1,080	1,088	1,089	1,085	1,071	1,081	1,082	1,087	1,100	1,089
2019	1,094	1,090	1,097	1,088	1,084	1,087	1,083	1,085	1,085	1,087	1,090	1,093